

# MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

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## Manufacturers' Record.

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BALTIMORE, DECEMBER 10, 1908.

## TURNING THOUGHT TO THE SOUTH.

Writing to the MANUFACTURERS' RECORD from Marengo, Iowa, Mr. J. C. Dinwiddle says:

I appreciate the paper very much and am quite interested in Southern development, expecting some day to investigate that section with a view to location. I have passed the paper around among my friends and am satisfied it has created a desire on the part of a number of them to first see what the great Southland has in store for them before going to the cold Canadian Northwest or the arid foothills of the Rockies in the search of new homes for themselves and their posterity.

That illustrates the work of the MANUFACTURERS' RECORD. It is turning the thought of thousands of people in the North and West to a study of the South as the place for home-making and for the investment of capital.

### CONGRATULATIONS.

Mr. George Westinghouse and those associated with him are to be congratulated that the Westinghouse Electric & Manufacturing Co. has now been returned to the control of its stockholders with the same organization as it had before the financial troubles of 1907, with the exception that Mr. E. C. Converse has been elected temporary chairman of the Board.

It should be a gratifying fact to the public that the man who has by invention and by business ability developed such vast business interests as have been created by Mr. George Westinghouse has not lost control of such an industry as his genius has made pos-

sible, and that he now resumes the presidency of the company with its financial affairs in shape for still larger expansion in the future.

### RAILROADS AND CONFIDENCE.

The recently organized Railway Business Association, of which Mr. George A. Post is president and Mr. G. M. Basford, assistant to the president of the American Locomotive Co., is acting secretary, is, in furtherance of its aim to bring about a better understanding as to the relations of the railroads and the public, circulating copies of resolutions recently passed by the Illinois Manufacturers' Association calling upon all Senators and Representatives of the State in the National and State Legislatures to discourage all measures having a tendency to continue or to aggravate agitation against corporate interests. The resolutions point out "that though the country has been blessed with abundant crops, the basis of all business prosperity, all interests have suffered by loss of confidence in the security of investments and general business conditions." The Illinois Manufacturers' Association urges Senators and Representatives not only to discourage measures of agitation, but to support all legislation which, without injury to their constituents, will tend to allay hostility toward business conducted under corporate form, whether in manufacturing, commerce or transportation, while the laws lately enacted are being tried out. It also urges all "municipal and civic bodies, corporations, transportation companies and individuals to refrain from acts that will cause agitation or disturbance which will retard the return of prosperity and favorable business conditions to the end that in the resulting quiet commercial and all other interests may have an opportunity to more quickly recover the golden days of prosperity heretofore enjoyed."

Copies of these resolutions, which are especially significant as coming from such an influential body, are being sent not only to legislators, but to all commercial and business associations and other public bodies of the State, asking their co-operation. The resolutions should have a wider circulation than that. They should be read, marked, learned and inwardly digested by every business body in the country, regardless of section, as a basis for intelligent and persistent pressure upon lawmakers everywhere for moderation and coolness in consideration of all matters bearing upon the fundamental and far-reaching question of transportation, with its interdependent commercial, industrial and agricultural interests, to the end that not only shall there be a check to legislation crystallizing agitation, so disastrous to all these interests, but also pernicious legislation already embodied in the statutes shall be repealed.

### CONSERVATION OF CROSSTIES.

Evidently the prospect of any extended use of metal or of concrete railroad ties is remote when so large and important a corporation as the Pennsylvania Railroad Co. sets about erecting a plant for treating wooden ties with creosote for the purpose of prolonging their average period of usefulness from three to eight years to twenty years or more. This is what the company is doing, having recently placed an order, according to a late report, for the building of such a plant at Mount Union, Pa., and another order for the construction of two large creosote tanks at Philadelphia. Moreover, the Pennsylvania a year or two ago planted a large number of trees to provide hereafter at least some portion of its tie requirements from its own groves, a step which it must be admitted was wise and prudent in view of the steadily increasing cost and scarcity of lumber. It has up to the present time set out about 2,500,000 young trees.

Notwithstanding that many efforts have been made to induce the railroads to use ties of some other material than wood, the movement in that direction has not met with any great degree of success. Steel ties have been used and are being used upon some European and some American railways, and of late years ties composed of concrete—a material which seems to be of almost infinite availability—have been produced, and the inventors thereof have obtained high endorsements for them. Yet the majority, the large majority, of railroad builders give preference to wooden ties, and it has been asserted by men of distinction in railroad engineering that no other material is the all-around equal of wood for track construction. In the early days of railroading stone sills, and in some instances posts of the same material, were set in the ground to support the rails, but it was found that the rigid resistance made by stone to the pounding of the traffic was racking upon the rolling stock, and, all things considered, wood was pronounced the best substance for ties, notwithstanding its perishability. It has continued to be used with satisfaction, and doubtless nothing else would be thought of except that wood is becoming scarcer and scarcer and also dearer and dearer.

This action by one of the most important railroad companies in the world to conserve the use of a large amount of wood is far more than notable; it is praiseworthy in the highest degree. And the Pennsylvania is showing the way to other railroads which may be hesitating about taking steps to grow their own tie timber or to preserve the ties which they purchase from others. To raise tie timber it is necessary to have a tract or tracts of land set aside and cultivated for no other purpose than that of tree culture. While it has been suggested sometimes that the right of way upon each side of a railroad track could be used to grow trees, such

use of the land is undesirable for at least two reasons, one being that trees would interfere with the railroad telegraph, and the other that storms might blow down trees upon the tracks and cause wrecks. Upon portions of lines where neither of these objections would be encountered, it might be well to set out trees, but this could hardly be done in sufficient numbers to be of value. Generally the advantages of groves for the growth of tie timber are too great to be neglected.

The drain upon our forests through the demand of the railroads makes it necessary that all railroad companies should take steps to secure the longest use of their ties by either setting up tie-treating plants of their own or by having ties treated with preservatives by others. The railroads of the United States now consume every year more than 100,000,000 of ties, and this vast quantity of timber is but a comparatively small part of the lumber cut of the country. It is therefore easily apparent that no amount of reforestation that is practicable could restore to us the condition which we once enjoyed in forest wealth. Preservation of timber which is exposed to the weather is therefore compulsory if we are to avoid a state of affairs similar to that prevailing in some countries of the Old World.

### FOUR NOTABLE RAILROAD ENTERPRISES IN THE SOUTH.

The building of the Carolina, Clinchfield & Ohio Railroad, in honor of which Spartanburg gave a great banquet last month, is one of the most remarkable railroad enterprises of the day. Its completion will fulfill the struggles of South Carolina when its great statesman, Hayne, and others nearly three-quarters of a century ago sought to construct such a road. They saw its importance as a freight and passenger carrier, but they saw even more. They realized that such a connecting link would unite the West and the South into closer business relations, and that out of this would come a broader national development which they believed would prevent the impending war. They, indeed, saw with prophetic vision that "the development of the South would mean the enrichment of the nation." But the leaders in this great plan were diverted from their task by the pressure of the politics of the middle of the last century, and thus one of the most magnificent schemes of the greatest leaders of the old South went down. Other men—great leaders in finance—have taken up the work, and though their motives may be the selfishness of desire for gain, they are building a line which will prove immensely valuable to the South and the West alike. It is said that the line already built has cost largely over \$100,000 a mile, which for a road of such length will make it one of the costliest ever built in this country, probably surpassing in this respect the somewhat similar

line which Henry H. Rogers is building from the coal fields of West Virginia to Norfolk, and into which he has already put \$30,000,000. The Clinchfield line will form a connecting link between the West and the South Atlantic coast. It will open up a coal region which has been rightly called "The Heart of America;" it will bring into the line of active development a region of unsurpassed natural resources, of marvelous beauty of scenery and of almost unequalled climatic attractions. Its effect upon the development of the whole region extending from Southeastern Kentucky through Southwest Virginia and the Carolinas to the ports which it will ultimately reach, probably both Charleston and Savannah, will necessarily be very great. Its importance to all that territory can hardly be overestimated. The people of Spartanburg did well, therefore, in making a joyous occasion to celebrate their victory in securing this line.

Among the most notable and unique railroads under construction in the United States are four now being built in the South. They are the Atlanta, Birmingham & Atlantic, the Key West extension of the Flagler system in Florida, this Clinchfield road and the Virginian. They are all being built at exceptionally heavy cost, and each in its way will be a powerful factor in aiding Southern upbuilding. The Atlanta, Birmingham & Atlantic Railway connects Atlanta, the center of great progressive forces, and Birmingham, with its vast coal and iron and steel interests, with the sea at Brunswick. It opens up many rich regions, including a marble territory which a distinguished expert long identified with the United States Geological Survey has predicted will rival, if not surpass, Vermont. It gives new and soon to be needed additional railroad facilities for Georgia and Alabama. Its cost has surprised many, but its owners are among the ablest railroad financiers in America, and they have proved their faith in the South by putting many millions into this splendid railroad, as well as into other Southern enterprises. Of the Clinchfield road and its almost priceless value to the South, of its strategic position and its fulfillment of the dream of the old South, we have just written. The Virginian road, almost as costly per mile as the Clinchfield, is being built because Rogers believed that with twice as much coal in West Virginia as in all Great Britain, almost as much in area as Great Britain, France and Germany combined, and probably much more in quantity, another line to the sea was needed. Hence he is linking Norfolk, where docks capable of handling over 5,000,000 tons of coal a year are under construction, with West Virginia. Eventually this line will, we have been informed, be extended to the Lakes, making another through system between the South and the West.

It is stated that Secretary Root, when the plans of the East Coast of Florida extension were explained to him, declared that to be, next to the Panama Canal, the most important work under way in America. As this line will give an all-rail route to Key West, our most important naval station having reference to Cuba and the Isthmus of Panama, Secretary Root's commendation doubtless had in mind the great strategic value of this road to the Government as well as its probable importance in the development of trade with the West Indies and through the canal. Nearly six miles of this line is built over the ocean, on concrete struc-

tures which have been planned with a view to defying the storms of the Atlantic. A more daring piece of work than this extension has probably never been planned by any of the world's great railroad builders.

These four lines will doubtless for many years to come rank as among the most costly, unique and important railroads which this country has or is likely to have. They have set a standard of construction which to some extent, at least, must sooner or later be followed by nearly all other roads. Their average cost will run far ahead of the average capitalization per mile of all the railroads in the United States. With construction of this character their efficiency in operation ought to be far greater than that of most railroads. As rapidly as money can be provided other roads will doubtless, to the extent that their traffic demands it, seek to cut down grades, take out curves and put down heavier rails, as these lines have done; in fact, other roads will be practically compelled to do so to take care of the growing trade of the country. Unless many millions are spent upon other Southern roads for this purpose they will in the near future prove wholly unable to meet the conditions of growing trade, and the South's progress will thereby be seriously retarded. We do not believe that all the railroad people of the South by any means appreciate the situation confronting them.

#### SOUTH'S INVENTIVE GENIUS.

Figures of patents issued to Southerners in 1907 in comparison with those granted to other citizens of the country might by themselves create an impression that the South is backward in expressions of the genius of invention. But a comparison of the figures of 1907 with those of 1883 seems to indicate clearly that the South is returning to the position which it held in this respect before the plantation system had begun early in the last century to hinder the natural mechanical ability of the people. Of the total number, 32,603, patents granted in 1907, but 3444 were granted to citizens of the South. In proportion to population, more patents were issued in that year to citizens of the District of Columbia than to those of any State, one patent to every 941 of the population. This may be partly explained by the fact that the Patent Office is at Washington, and naturally attracts to that city men of a designing turn of mind. The order of the ratio of patents granted to population was, after the District of Columbia, Connecticut, 1 to every 987; Nevada, 1 to every 1085; California, 1 to every 1128; Colorado, 1 to every 1173; New Jersey, 1 to every 1252; Washington, 1 to every 1263; Massachusetts, 1 to every 1327; Illinois, 1 to every 1388; New York, 1 to every 1389; Rhode Island, 1 to every 1581; Ohio, 1 to every 1667; Pennsylvania, 1 to every 1815; Oregon, 1 to every 1888; Montana, 1 to every 2062; Idaho, 1 to every 2128; Michigan, 1 to every 2190; North Dakota, 1 to every 2381; Oklahoma, 1 to every 2690; Wisconsin, 1 to every 2729; Indiana, 1 to every 2732; Utah, 1 to every 2740; Missouri, 1 to every 2749; Minnesota, 1 to every 2928; Maryland, 1 to every 3107; Kansas, 1 to every 3113; South Dakota, 1 to every 3161; Arizona, 1 to every 3235; Nebraska, 1 to every 3267; Iowa, 1 to every 3285; New Hampshire, 1 to every 3401; Vermont, 1 to every 3656; Maine, 1 to every 3901; West Virginia, 1 to every 4045; Delaware, 1 to every 4198; Wyoming, 1 to every 4206; Florida, 1 to every 4761;

Texas, 1 to every 5004; Indian Territory, 1 to every 6589; Virginia, 1 to every 6767; New Mexico, 1 to every 7233; Kentucky, 1 to every 8063; Georgia, 1 to every 8395; Louisiana, 1 to every 8635; Tennessee, 1 to every 8709; Arkansas, 1 to every 8743; Alaska, 1 to every 9063; Hawaii, 1 to every 9625. The fewest patents granted in proportion to the number of inhabitants were, according to the Patent Office report, in the following States: South Carolina, 1 to every 26,302; Mississippi, 1 to every 14,363; North Carolina, 1 to every 12,377, and Alabama, 1 to every 11,722.

On its face this is not an especially gratifying exhibit for the South. It should be remembered, though, that about one-third of the population of the South is a race more imitative than inventive, whose presence there not only directly contributes to the comparatively small ratio of patents to population, but also has for more than two centuries tended to weaken the inventive inclinations of the whites. Still, even with that fact given due weight, it, nevertheless, is obvious from a study of the accompanying table of

Patents Granted.

States.	1883.	1907.	In-crease.	P. C. of in-crease.
Alabama.....	77	156	79	102.5
Arkansas.....	59	150	91	154.2
Dist. of Col.....	217	296	79	36.4
Florida.....	24	111	87	362.5
Georgia.....	115	264	149	127.8
Kentucky.....	228	304	76	33.3
Louisiana.....	89	160	80	100.
Maryland.....	290	383	93	47.3
Mississippi.....	51	108	57	111.7
North Carolina.....	87	153	66	75.8
South Carolina.....	47	72	25	53.1
Tennessee.....	124	232	108	87.
Texas.....	208	544	336	161.5
Virginia.....	122	274	152	124.5
West Virginia.....	82	237	155	189.
Total.....	1,781	3,444	1,663	99.6
United States.....	20,963	32,603	11,640	55.5

patents granted, that the South is again returning to its own in invention, as it is returning in every other particular.

It is quite notable that during the past 25 years the only States in the country showing a decrease in the inventive faculty, judged by the granting of patents, are five New England States, once the peculiar home of American invention. The percentages of decrease in these five States have been: Maine, 2.8; Massachusetts, 2.8; New Hampshire, 14.8; Rhode Island, 20.6, and Vermont, 15.9, while of all the other States in the country Connecticut had the smallest rate of increase, 4.1.

In the 25 years the population of the whole country increased about 70 per cent, but the number of patents granted in the whole country increased but 55.5, from 20,963 to 32,603. On the other hand, with its population increasing about 64 per cent, the number of patents granted in the South increased 99.6 per cent, from 1781 to 3444. In every Southern State, excepting Kentucky, the number of patents granted increased during the 25 years at a greater rate than the population.

These deductions from patent figures are, of course, merely suggestive. For instance, one such patent as that of the reaping machine, which, by the way, was invented by a Virginian, would count in an absolute estimate of values as much as 100 of the many minor patents granted every year. Again, one man might patent a dozen devices in one year, and that fact, superficially viewed, might create an impression that there were twelve inventors hailing from the State of his residence. Viewed by the large, however, the comparison between 1883 and 1907 can be but encouraging to everybody studying the aims, aspirations and attainments of the South.

#### USING THE MANUFACTURERS' RECORD.

Referring to information about Mt. Pleasant, Texas, published by us, Mr. J. V. Moore, secretary of the Commercial Club of that place, writes:

Your recent issue was more than a surprise to me and the Commercial Club at this place. I wrote to you with the full expectation of inserting an ad. to get in touch with Eastern money. You kindly printed what I wrote and I have had five responses already. Accept my sincere thanks for your unexpected kindness. We feel that you are doing more than any other periodical to bring out and develop the South, and I shall never be too busy to do anything for you that lies in my power.

This is one of the many letters indicating the divers uses made of the MANUFACTURERS' RECORD by men striving to bring out all that is best in their section or to give a wider sort of publicity to their special interests. The MANUFACTURERS' RECORD invites similar letters from all other Southern towns, and always welcomes such news as Mr. Moore sent us. Another typical letter is from Mayor Martin Behrman of New Orleans, who writes:

I wish to express my sincere thanks to you and through you to Mr. Albert Phenix, your able correspondent, for the article which appears in the MANUFACTURERS' RECORD of November 12, 1908, under the caption "Encouraging Investments in Louisiana." An article of that kind, which so ably presents the conditions here in Louisiana, in a journal of the high standing enjoyed by the MANUFACTURERS' RECORD throughout the country, operates incalculable benefit to our Commonwealth and especially to our great metropolis, New Orleans. The appreciation of all our people for such valuable assistance is enhanced by the fact that your Mr. Phenix on repeated occasions has given the city of New Orleans prominent mention in his correspondence.

Mr. George W. Wrenn, secretary of the Blue Ridge Construction Co., Asheville, N. C., tells how he individually seeks to further the work done by the MANUFACTURERS' RECORD. Referring to copies of pamphlets sent us by him, he writes:

We have received two of these pamphlets, and have passed them to other parties and called their attention to contents. I wish to say that I have made it a point to leave copies of the MANUFACTURERS' RECORD in smoking and reading rooms, also placed them at news stands and other places where they will be seen by people who are not subscribers; also have called the attention of manufacturers, contractors and business men generally to the MANUFACTURERS' RECORD and the good work it is doing for the South, and feel sure that we are all benefited by the work you are doing.

Suggestive of the wide range of information sought through the MANUFACTURERS' RECORD is a letter from Mr. M. L. Martin, 1277 Brush street, Detroit, Mich., in which he says:

Can you give me any information as to a few good locations in the middle South where the organization of a moderate-sized banking institution can be undertaken with a prospect of a good and increasing business? It occurred to me that your intimate knowledge of the South and its needs would enable you to suggest some desirable locations.

Mr. A. F. Baker of Hendersonville, N. C., wrote about the middle of November as to prices for deck lights used on steamships for lighting inside cabins. Following our regular habit, we sent him a list of firms dealing in deck lights, and also published his inquiry in our Daily Bulletin and in the Construction Department of our weekly issue. This brought from Mr. Baker the following:

Please let me thank you for your prompt and courteous reply to my inquiry and for the information given. I will certainly mention your paper to the firms given and will also urge our contractors and builders to get in close touch with you, as I have tried to get this information from them for several weeks. They had better get your paper.

Another instance of this friendly in-



terest in our work is given in correspondence from Mr. F. M. Everett, treasurer of the Columbian Rope Co., Auburn, N. Y. In sending to the MANUFACTURERS' RECORD a copy of a letter which his company had received from Mr. John G. Yphantidis of Trebizonde, Asiatic Turkey, he writes:

You will note that Mr. Yphantidis states that he has seen our advertisement in your magazine and is asking us for samples and prices on our goods. We are pleased to say that through the medium of your paper we have secured a nice account in Smyrne, Asia Minor. This account is developing nicely and has brought us some very satisfactory business.

Mr. Yphantidis' letter is as follows:

I owe your address to the MANUFACTURERS' RECORD, and please kindly post to me some samples of goods you export, with information and explicit description, in order that I may understand the cost of each c. i. f. to see if there is any probability of business.

In subscribing to the MANUFACTURERS' RECORD United States Senator Duncan U. Fletcher of Florida writes:

I have had occasion to read quite frequently the MANUFACTURERS' RECORD, although I have not been a regular subscriber. I have read with great interest Mr. Edmonds' splendid pamphlet, "Facts About the South," and feel indebted to him and to the MANUFACTURERS' RECORD for the magnificent work they have been doing.

#### WORKING FOR THE SOUTH.

Referring to the work now being done by the Columbia (S. C.) State, the publication of articles showing the industrial conditions in and around South Carolina, the Colleton (S. C.) News, as quoted by the State, says:

It was just such a movement as this that made the MANUFACTURERS' RECORD of Baltimore what it came to be, a big paper for the South. It pictured prosperity as possibilities in the South, made it almost an exclusive business, until the point was reached where the commercial world looked for the MANUFACTURERS' RECORD to find out what it wanted to know about the South, and looked to the South to find what it wanted to develop and a place to make its investments.

The MANUFACTURERS' RECORD wishes that every other newspaper in the South would do as such papers as the Columbia State and a dozen others are doing—publishing regularly and systematically information about the material progress and the possibilities of further advance in their respective fields. We could wish no stronger endorsement of the work which we have been doing for more than a quarter of a century, and shall continue to do as long as the occasion calls, than the full co-operation of the daily and weekly newspapers of the South in the work of stirring the Southern people to a full realization of their vast opportunities, and in that presenting the most powerful argument to developmental powers outside the South for participation in its wealth-creating undertakings.

#### HOLIDAY PROBLEMS SOLVED.

The season of remembrance is upon the world again, and millions of people are wrestling with the problem of recognizing it in proper fashion. Upon some folks the custom bears as an actual burden simply because they permit materialism to overshadow the spirit of the time and are driven into the habit of imagining that their giving is to be estimated by the cost or the size of the gift, rather than by its appropriateness or the impulse behind it. These sufferers are comparatively few, and include the individuals who feel compelled to make all sorts of expensive presents, ranging from automobiles to baby grand pianos. Others, and they by far the largest number, are obliged to make a little money go a long way. For such it must

be a relief to know that nothing can be more acceptable than something selected from the extensive collections of juveniles, calendars, booklets and cards which years of experience in meeting the desires of discriminating taste and judgment have enabled Raphael Tuck & Sons' Company, Ltd., of New York, to offer as a solution of the annual midwinter holiday problem. In a species of natural selection and elimination, and in a determination to meet an ever-widening demand of various kinds, the company has acquired an extensive line of publications, embracing nearly 2000 sets of original designs, on each of which, from the lowest to the highest price, the same unremitting care to insure full artistic effect has been bestowed. For 10 years, for instance, the company has issued "Father Tuck's Annual," maintaining its high degree of merit and appealing not only to successive generations of children, but also to grown-ups who would not forget their youth. It is by all odds the premier of the company's toy books, which appear in several series, including those which the child may itself color, and the washable line class. In calendars 400 numbers are offered this season, many of them most attractive novelties, and the Christmas, New Year and birthday cards are of like character. Among them are special seasonal post-cards, and the sets of State capitols, men of letters, Presidents, homes of Presidents and occasionals. Workers at holiday problems will find the solution in this list.

#### THE COTTON MOVEMENT.

In the first three months of the present season, according to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight was 6,320,830 bales, an increase over the same period last year of 1,709,256 bales. The exports were 3,145,572 bales, an increase of 653,471 bales. The takings were, by Northern spinners, 983,918 bales, an increase of 451,721 bales; by Southern spinners, 685,250 bales, a decrease of 43,494 bales.

#### Demand for Pocahontas Coal.

The MANUFACTURERS' RECORD is in receipt of a letter from one of its representatives covering an interview with a prominent machinery manufacturer in Northern Ohio on the increasing demand by Northern manufacturing centers for Pocahontas coal slack over that from the Pittsburgh coal regions, and how its broader consumption is held back by the difference in freight rates. This gentleman, whose name for obvious reasons is not disclosed, stated that at the present time Pocahontas coal slack could be delivered in Cleveland at \$2.25 per ton, while Youghiogheny coal or Pittsburgh coal slack was being delivered there at \$1.65 per ton. He also stated that the Pocahontas slack coal was much better for steaming purposes than the Pittsburgh coal, and added that it would appear to him to be a fine opportunity for the producers of the former to market their slack in the North if they were able to equalize the price. The development of this business seems to depend entirely upon freight rates, and there does not appear to be sufficient economy in the coal consumption to justify paying the existing difference, but this gentleman pointed out that if the Pocahontas slack could be delivered, say in Cleveland, at \$1.90 to \$1.95 per ton, there would be a tremendous increase in its demand.

The Southeastern Road Congress at Atlanta, Ga., over which Governor Hoke Smith presided, declared in favor of the issue by the counties of Georgia of bonds for road improvement and for Government aid in the construction of post roads.

## STATISTICAL SURVEY OF THE SOUTH.

People and Press on the Latest Compilation by the Manufacturers' Record.

#### Better Than All Other Influences.

Mr. D. A. Tompkins of the D. A. Tompkins Company, engineers and contractors, Charlotte, N. C.:

I have looked over the statistical copy of the MANUFACTURERS' RECORD of this week, and if the MANUFACTURERS' RECORD never put out any other printed matter but this, and circulated this widely, it will have done the work of publicity for the South better than all other influences put together.

#### No Copy Should Be Wasted.

Paul T. Brady, the Westinghouse Company, New York:

Your Thanksgiving number is such a magnificent number that I am going to again request that you mail a copy of that number to each of the addresses mentioned in my former letter and send me the bill for the same. I would like Dunn, Fischer & Co., London, to get three or four copies. No copy of that paper should be wasted.

#### "Noble Array of Figures."

Rev. Dr. Collins Denny, Vanderbilt University, Nashville, Tenn.:

I had the pleasure of reading the last issue of the MANUFACTURERS' RECORD, and nowhere have I seen such an exhaustive and noble array of figures setting forth the progress of our dear South than was contained in that issue of your paper. I write to assure you of my appreciation, particularly of this special issue of your paper, and also of the long work you have done for the upbuilding of the South.

#### For Ready Reference.

F. C. Bryan, manager of sales Clinchfield Coal Corporation, Roanoke, Va.:

I want to take this opportunity to congratulate you on your issue of last week's MANUFACTURERS' RECORD. It certainly is a wonderful copy, and the statistical information contained therein is of the greatest value. I am keeping a copy of the issue in question on my desk for ready reference.

#### Hit the Nail Square.

Thomas G. Gaylord of Hutchinson & Gaylord, bankers, New York:

The MANUFACTURERS' RECORD certainly hit the nail on the head in its editorial comment on November 26, when it stated that it presented the most comprehensive and thorough statistical exposition of the progress and potentialities of the South that had ever been given to the public.

#### Wants Millions Circulated.

S. A. Jones of Waynesville, N. C., who has worked for 25 years in upbuilding the South:

I want to congratulate the MANUFACTURERS' RECORD on its Thanksgiving issue. It carries information and statistics and facts that business men want to know about the South that will justify every town, city and State in the South \* \* \* to procure several million extra copies to be mailed all over the world. While the editor of the MANUFACTURERS' RECORD differs with us on some national political measures, there is no reason why he should not have the same right to his political opinion as a great many men called big men in the Democratic party that differ in their views with 6,500,000 democrats. This is a free country, and men must differ to get the best results, one vying with the other for the best common good. But no sane man can differ from the view that the MANUFACTURERS' RECORD is conducted on the right industrial lines and is doing more for the upbuilding of the South by a hundred to one than any other effort be-

ing made by any single or any number of publications.

#### Sounds Like a Fairy Tale.

[Charlotte (N. C.) News.]

Figures compiled by the MANUFACTURERS' RECORD showing the wealth of the South are so astounding it is well-nigh an impossible task to fully appreciate their meaning. The MANUFACTURERS' RECORD keeps in close touch with the progress of Dixie. It takes note of every revolution of the wheels of progress, and occasionally, as now, it gathers together its data and tells the world a story of growth that sounds like a fairy tale. There is little use to add to its story any comment, for the record of growth speaks eloquently for itself. \* \* \* To every patriotic Southerner the story of progress told by the MANUFACTURERS' RECORD must stir a feeling of ineffable pride.

#### A Story of Courage.

[Birmingham News.]

If the business man who has been somewhat discouraged over the conditions in industrial and commercial circles during the past 12 months will take the time to study the exhibit in the MANUFACTURERS' RECORD of November 26 under the head of "Thanksgiving Inventory of the South" he cannot but gather inspiration and be stimulated to fresh efforts to contribute his part to the rising tide of prosperity. Then let him turn to the splendid showing under the head of "Results—The South—Resources," in the same issue, and get additional inspiration from that. Both of these contain a wealth of information setting forth the wonderful resources and suggesting the almost unlimited possibilities of the South. \* \* \* It is a story of energy, enterprise and courage, and it ought to bring renewed hope and additional efforts to capitalists and laborers alike.

#### Marvelous Array of Figures.

[Lynchburg (Va.) News.]

The News prints today a graphic and impressive outline of the South's industrial development within the past three decades, as presented in this week's edition of the MANUFACTURERS' RECORD. The article is carefully compiled, and embodies an array of statistics which of themselves alone tell a marvelous and inspiring story of material achievement. So marvelous, indeed, is it—so teeming with immensity of significance—that it is well calculated to strain human conception itself.

#### An Imposing Inventory.

[Raleigh (N. C.) Times.]

The esteemed MANUFACTURERS' RECORD presents an imposing inventory of the South's progress during the last 28 years. "Thanksgiving Inventory of the South," it calls the array of figures, showing our wonderful development, and a better name could not have been given. The figures show in a wonderful way that the South, indeed, has much to be thankful for. Though still much remains to be done that should have been accomplished before this, the growth of this section has been simply marvelous. Page after page of figures is given by the MANUFACTURERS' RECORD.

#### A Great Service Done.

[Harrisonburg (Va.) Times.]

Again has the MANUFACTURERS' RECORD done this part of our great Union, commonly called "The South," a great service in the issue of November 26 by publishing what it truly says "is the most comprehensive and complete exposition of Southern progress and potentialities ever presented statistically." It does this by pub-

lishing tables of figures, which take up eight of the pages of this journal in showing Southern progress during the 28 years from 1880 to 1908.

#### Reads Like an Epic.

[Macon (Ga.) Telegraph.]

The Baltimore MANUFACTURERS' RECORD presents a statistical exposition of Southern progress covering the last 28 years which will be a revelation to many who have been taught to believe that this section is slow and poky and far behind in the race for material blessings. . . . The summary of the MANUFACTURERS' RECORD's facts in detail reads like an epic in figures, and is the best answer to those who carp at Southern enterprise and Southern politics, and it is the most glorious intimation of what is in store for the future when our resources, yet in their infancy of development, have been opened up in all their vast extent.

#### Shown at a Glance.

[Norfolk (Va.) Ledger-Dispatch.]

An inventory of the progress that the South has made since 1880 was used by the MANUFACTURERS' RECORD as a reason for special thanksgiving this year by the people south of the Potomac. It embraces a vast amount of figures, but tells a story that cannot fail to be of interest to a man of thought. By a glance at these it can be seen to what a manufacturing and commercial section the South has become, and what a change three decades have wrought.

#### Potential Proof of Progress.

[Wall Street Summary.]

These figures, furnished us by that persistent advocate of Southern development, the MANUFACTURERS' RECORD, are potential and convincing proof of the wonderful strides and substantial contributions to the nation's wealth, greatness and prosperity made by Dixieland in 40 years—notably in the last decade.

#### Rejoicing for the South.

[Troy (N. Y.) Times.]

The rest of the Union, however, rejoices in the increasing prosperity and happiness of the South. That industrious and painstaking collector of facts, the MANUFACTURERS' RECORD of Baltimore, which persistently sheds the limelight upon the South, tells us that the density of Southern population in 20 years has risen from 20.3 to 33.2, which equals the gain in the same period for the country generally. . . . With such development, in which the entire nation will take pride, the South should have a larger voice in the council chambers of the nation.

#### Oratory of Figures.

[Washington Post.]

The South never produced an orator more eloquent in singing her praises than these bare figures. They tell a story of a unified people, of a soaring spirit, of intelligent energy and of social content more wonderful than ever fell from the lips of a Grady or any limned by the tongue of a Colquitt.

#### ON SOUTHERN INVESTMENTS.

##### More Endorsements of the Views of Paul T. Brady.

William C. Seddon of William C. Seddon & Co., stock brokers, Baltimore, writes to the MANUFACTURERS' RECORD:

"I notice that Mr. Paul T. Brady of the Westinghouse Company calls attention to the fact that he has been persuaded by reading the MANUFACTURERS' RECORD that the South presents a most profitable field of investment, and that he has induced capitalists to put their money there, and so profitable is the return that he expects to raise at least \$10,000,000 more than he has already raised for investment in that productive field. This does not

surprise me in the least, and what strikes me as remarkable is why the MANUFACTURERS' RECORD is not read by more people, and in reading it, why capital should not be drawn to that section even in larger sums than it has been. The MANUFACTURERS' RECORD has always been honest and upright and has given the very best advice to all investors, and I am sure that if capitalists would follow its teachings they would reap great benefit. I have read your paper for many years with the greatest interest, and have been struck with the fact that your prophecies have always been invariably right, and it seems to me that the South today offers a better field for investment than any other part of the United States."

G. Gunby Jordan, president Eagle and Phenix Mills, Columbus, Ga., writes:

"I have read with much interest the article by Mr. Paul T. Brady of the Westinghouse Electric Co., and believe that not only he, but a great many other investors, have been induced to regard the South, first seriously, and then eagerly, by articles which have appeared in the MANUFACTURERS' RECORD. I have been a reader of the MANUFACTURERS' RECORD for a great many years, and believe that there is no other single factor in the United States that has done so much for the development of the South as has this journal. Your reliable statistics and splendid articles, attractively presented, regarding the wonderful resources of the South have been an inspiration to me through many years. . . . Reasonable consideration for invested capital, generous appropriations for industrial education, able presentation of the opportunities of the South (as the MANUFACTURERS' RECORD does present them), are all working toward a wonderful development in this favored section."

Mr. Thomas G. Gaylord of the firm of Hutchinson & Gaylord, bankers, 43 Exchange place, New York, in discussing the same point, says:

"I have just returned from the South with my partner, Mr. Hutchinson, after an extended inspection trip of the properties of the South Florida Phosphate Co. and other phosphate plants in that wonderfully rich belt lying in Polk county, and I was particularly impressed with the tendencies to renewed activity and continued growth in all branches of industry, manufacturing, mining and agriculture.

"I am especially glad, being a Southerner, to note that new enterprises are springing up everywhere and attracting the interest of investors in Southern companies. The table printed on page 50, showing the production of phosphate rock, proved so convincing that we have had the same reproduced and credited to the MANUFACTURERS' RECORD.

"We are specializing in the securities of Southern corporations, and have found that the investing public is beginning to appreciate the wonderful resources and opportunities offered to individuals and corporations throughout our Southland. The class of securities of Southern corporations of both industrial and railroad enterprises ranks well among the investing world."

G. D. Baker of Isidore Newman & Son, bankers, New York, writes:

"Relative to the opportunity for investment in the South, we beg to say that we cannot reply from the point of view of the average firm or institution in the North, because having practically confined our energies to the South throughout a great many years, we naturally think from the point of view of the Southerner. Although we have been represented and the members of this firm have spent a considerable portion of the time for a number of years in

New York, where we have a general view of all of the opportunities for investment which are offered from all sections of the country, we find ourselves still active in handling the securities of the Southern corporations, and we can see no reason why we should seek to make investments elsewhere while there are so many favorable opportunities offered by the South.

"The basis of our belief in the possibilities of future investment in the South is the undeveloped state of the South's enormous resources. The average individual business man of the South is no less businesslike and intelligent than the man of any other locality in the United States. By comparison of the development of other localities with similar localities in the South it may readily be seen just what will be the result in the South in the development of its resources when the same intelligence and ability and industry and investment of capital are applied to the upbuilding of the Southern sections. It is only necessary to make a very casual comparison of the area, the richness of the soil, the favorable climatic conditions and the regions of timber lands and mineral deposits with the Northern or Eastern sections of the United States which have reached a much higher state of development. The same industrial intelligence applied to the natural resources of the South will bring about a state of development which is at least as perfect, and wealth to its people as great as is the accumulation of wealth in those other sections. With the knowledge of what has transpired in the sections now more highly developed and the certainty of like development to take place in the undeveloped but richer sections of the South, the investor may see with almost perfect accuracy that his present investment will be followed by that of others, and that his will thus underlie those to be made hereafter."

#### FAITH IN ONE'S COMMUNITY.

##### Diversified Industries the Result at Goldsboro.

[Special Cor. Manufacturers' Record.]

Goldsboro, N. C., December 3.

Goldsboro is a striking example of many of the smaller cities of the South that are developing entirely through their own efforts and local capital. The necessary capital to start all of the city's enterprises, financial, mercantile and manufacturing, was all furnished by local men. Many of the undertakings had, of course, small beginnings, but by good business management they have steadily grown and expanded until they have become in size and importance the equal of many in other parts of the State. A significant feature of the manufacturing plants here is their diversified character, and with possibly two exceptions each one makes an entirely different product. They include furniture factory, iron foundry and machine shop, lumber mills, brick works; sash, door and blind factory; cotton, knitting and rice mills; agricultural implements and veneering plant for making packing cases. Such activity on the part of Goldsboro's progressive business men evidences a knowledge and appreciation which they must have of their own opportunities and resources. It also emphasizes their faith in their city as a manufacturing center and its future growth.

During the past year Goldsboro has been unusually active, which is somewhat surprising to outsiders when general business conditions during that period are considered. A fine new union passenger depot has about been completed, and in the future all trains of the three railroads entering the city will use it, thereby diverting the traffic from the center of the city's main street and no doubt adding to its further development. Four new build-

ings are being erected at the Eastern Hospital, while work is being pushed on the \$25,000 Jacobi Memorial building at the Odd Fellows' State Orphanage. Among the buildings completed during the year are the new home of the National Bank of Goldsboro, the Odd Fellows' building and numerous well-designed and substantially constructed residences. Indeed, the latter are of such a character that they convince the observer that prosperity must reign in this section. The Utility Manufacturing Co. was organized to make packing cases from gum logs, this being accomplished by veneering machines, and is an industry that is growing rapidly in several parts of the South. The company's plant was completed and started during the year, and is now running with a payroll of nearly \$1000 a week, and reports an increasing demand for its products. Both the Goldsboro Knitting Mills and the Borden Manufacturing Co., cotton manufacturer, have increased their capacities during the year in order to be ready for larger demands for output, which they believe is bound to come.

Sixteen miles of rails have already been laid on a street-railway line which is being constructed by the Goldsboro Traction Co. The road will run to East Goldsboro, where the company has purchased land and laid out a park, which will be devoted to residence as well as pleasure purposes. Already a number of new residences are being planned for the park and along the line of the railway.

From every branch of business there came expressions of confidence in the business outlook, and they all talked of Goldsboro and its advantages with a faith that will make for still greater expansion in the future. Those who talked are backing up their words by doing things, consequently they have every reason for their confidence in the still broader development of the resources and opportunities in and around Goldsboro.

When the observer studies the conditions here and the way in which they have been developed entirely by local capital he cannot help but feel that if its resources and opportunities were brought before outsiders—investors, manufacturers and home-seekers—even greater advances would bound to result. WM. H. STONE.

#### American Architects.

At the meeting next week in Washington of the American Institute of Architects reports of special committees will be made by R. Clipston Sturgis on competitions; E. M. Clark, on municipal improvement; William S. Eames, on international congress of architects; William D. Mundie, on the relations of architects to the contracting system; by William B. Itner, on the registration of architects; William S. Eames, on government architecture; Breck Trowbridge, on the proposed bureau of fine arts, and D. H. Burnham, on the memorial to Augustus Saint Gaudens. At the meeting in memory of Saint Gaudens addresses will be made by Secretary of State Root and by the diplomatic representatives of half a dozen foreign countries.

#### The Piedmont Power Co.

The Piedmont Power Co. of Atlanta, Ga., has filed a petition for incorporation, the capital stock being \$3,000,000, with privilege of increasing to \$10,000,000. This company plans the development of water-power on the Tugelo River and the transmission of about 20,000 horse-power by electricity. Messrs. Wm. M. Nixon, W. L. Peel, F. J. Paxon, Davis Woodward, Sam D. Jones, J. D. Turner, J. S. B. Thompson and L. B. Magid are the incorporators.



# INTERESTS OF NEW ORLEANS.

## Developmental Undertakings More or Less Related to That City.

Bureau of the MANUFACTURERS' RECORD,  
1012 Maison Blanche,  
New Orleans, La., December 5.

A very interesting and well-attended convention in the interest of the Interstate Inland Waterways, extending from the Mississippi River to the Rio Grande, concluded a two days' session at New Orleans today.

This is the fourth convention held in the interests of this important project, the first having been held at Victoria, Texas, August 8, 1905. In the standing of the delegates attending, in the enthusiasm as to the importance and necessity of the work, and in the able presentation of the various topics discussed, the personnel and the proceedings of the convention were of a notable character. The resolutions adopted heartily endorsed the project of an intercoastal canal from the Mississippi to the Rio Grande, with a minimum depth to the canal of 9 feet and a width of 100 feet, and the resolutions also endorsed the project of a deep waterway between the Lakes and the Gulf via the Chicago Drainage Canal and the Illinois River to and down the Mississippi River.

The object of the convention is indicated in a historical reference to the origin of the movement for the improvement of Southern waterways. In a speech by M. J. Saunders of New Orleans mention was made of the beginning of the movement, which had its origin in a convention held at Baltimore following the feat of Senator Thomas H. Carter of Montana, when at an expiring session of the United States Senate he talked to death a river and harbors bill which was up for passage at that session of Congress. Mr. Saunders recalled that with the utmost sang-froid, and without arousing any popular protest from the people of the country, this Montana Senator had consumed the time of the Senate up to its closing hour with a dilatory and irrelevant speech, thus preventing the passage of a bill which had received the careful consideration of the rivers and harbors committee of Congress, and which provided for waterways improvements of the greatest importance to a large portion of the United States, and affecting in its ultimate results the business of the entire country. It is the object of conventions such as the one just held to arouse public sentiment to the importance of river and harbor improvements to such an extent that not only will Senators be unwilling to antagonize popular demands for such improvements, but that the co-operation of national legislators may be secured for carrying out the important work passed on and approved by local and Government engineers.

In the speeches made at the convention just closed the resources and possible developments of the country tributary to the coast of Louisiana and Texas were presented in striking and impressive form. The marvelous development which has occurred in recent years, and which is continuing now at a greatly increased rate in all the coast country between New Orleans and Brownsville, was indicated in the statistics presented by the speakers at the convention, and a convincing argument was made as the result of these presentations in favor of the completion of the waterway proposed at the earliest possible day. It is felt that a great impetus has been given to the work, and that from now on Congressional consideration will be given to the enterprise greater than it has ever received heretofore, and that without serious opposition or needless delay not

only will there be an intercoastal canal between the Mississippi and the Rio Grande, but that the country will demand the completion of the entire intercoastal canal project, which contemplates a waterway from Boston to Brownsville, and that the importance of inland waterway development of all navigable streams will be forced upon Congress in such a way that favorable action will not be longer delayed.

Besides the opening addresses by President C. S. E. Holland of Victoria, Texas, Mayor Martin Berhman of New Orleans and J. E. Kaufman, secretary of the Galveston Business League, the program included addresses by Lieutenant-Governor A. B. Davidson of Texas, on "Texas;" by Governor J. Y. Sanders of Louisiana, on "Louisiana;" by Thomas Wilkinson of Burlington, Iowa, on "Head of the Father of Waters;" by Col. L. H. Beach, on "Engineering Features of the Intercoastal;" by George E. Barstow of Barstow, Texas, on "National Reclamation of Arid and Swamp Lands;" by Walter Gresham of Galveston, on "Relations of the Intercoastal Canal to the Gulf Ports;" by Leon Locke of Lake Charles, La., on "From the Mermentau to the Sabine;" by Eugene A. Pharr of Morgan City, La., on "Seaports Along the Intercoastal;" by Dr. Leon Jastremski of Houma, La., on "The Short Route from New Orleans to Morgan City;" by Leland J. Henderson of Apalachicola, Fla., on "Mississippi to Atlantic Inland Waterway;" by J. W. Porch of New Orleans, on "Port of New Orleans;" and by Judge Noah Allen of Brownsville, on "The Lower Rio Grande Valley When Connected With the Mississippi River."

Corpus Christi was chosen as the place for the next convention.

A very interesting reclamation project is just being undertaken by Port Arthur, Texas, on plans for the system designed by J. F. Coleman, consulting engineer, New Orleans. The project is to ditch and drain 10,000 acres of land on the border of Sabine Lake, now subject to tidal overflow, and to provide drainage for other lands which require it within an area comprising 30,000 acres in all. This is the first project undertaken under the new Texas law which authorizes the people of any locality to organize themselves into a drainage district and to tax themselves for the improvement and the maintenance of the work. The area organized in the Port Arthur instance includes 30,000 acres in and immediately around the town of Port Arthur, and extending eight miles to the northeast to include the town of Nederland. The assessed valuation of the property within the tract is \$7,500,000, this large valuation representing, of course, the value of property in Port Arthur, with 8500 population, and the town of Nederland, with 300 or 400 population; also several plants of oil-refining companies, and the large tract of highlands under cultivation, principally in rice. The district has been authorized to issue \$300,000 in bonds, with which it is proposed to establish a main pumping plant to serve the entire area, including Port Arthur, and an auxiliary pumping plant which will serve only Port Arthur, and will be used only in times of excessive rain. There will be about 20 miles of main drainage canals, ranging from 125 feet wide and 10 feet deep to 25 feet wide and 6 feet deep. In addition, there will be a considerable mileage of laterals of lesser size. Completion of the plant will make available for any purpose the entire 30,000 acres.

The cost of the development will be about \$300,000. The bonds have been offered for sale, and contracts for construction will be advertised within two weeks. It is hoped that the bids may be opened in January, shortly after the holidays. It is calculated that about a year will be required to finish up the entire work.

The Board of Drainage Commissioners is composed of L. W. Reed, chairman; H. Morris and Jan Van Tyen, secretary.

This is the first project under the new drainage law of Texas in which anything other than mere gravity drainage is involved, and is looked on with much interest by the people there and in similar sections in Texas, and if it meets with the success hoped for, it will doubtless mean the beginning of other similar operations all along the Texas coast.

Port Arthur's enterprise in undertaking this pioneer work is quite in keeping with the character of the place. There are a number of public buildings and private residences in Port Arthur that would be a credit to much larger cities. New improvements include a first-class hotel, which is being built on the site of the one destroyed by fire some years ago. Port Arthur is a deep-water port, having a ship canal from Sabine Pass up to the city front. There is an up-to-date system of docks, with wharfs and sheds and facilities for the accommodation of very heavy traffic. Port Arthur is an oil center, being the terminus of pipe lines from Beaumont and Humble oil fields, and also for a line from Oklahoma, and it is the center of a very extensive oil refinery business.

Ground has been broken for the first group of buildings for the International Car Co.'s plant, which will occupy a tract of 37 acres advantageously located on the line of the New Orleans Terminal Railway parallel and adjacent to Metairie Ridge road, New Orleans.

The first building to be erected is the planing mill, 60x150 feet. It is to be of steel construction, as the remaining five or six buildings will all be. The contract for the first building has been awarded to the Virginia Bridge & Iron Co.; M. & V. Garsaud have the contract for the substructure, corrugated sheeting, doors and windows; the contract for planing-mill machinery has been let to Greenlee Bros. Company, Rockford, Ill. Rails sufficient for the two main tracks each side of the buildings have been purchased, and the tracks will be laid at once. Work will be pushed so that the first building will be ready for occupancy the first of February.

It is intended that within 10 days from the date of breaking ground sufficient materials may be assembled for beginning repair work. The planing mill will be used as a machine shop for the present, but work on the main shop and the other buildings will be taken up as fast as the company can get around to them.

It is the purpose of the company to establish a plant which will be first-class in every respect. The buildings will be fire-proof, and will be equipped with the highest class of modern machinery, electric power being used. It is proposed to buy, sell and manufacture, build and repair railroad freight cars and passenger coaches and locomotives of all kinds, as well as car equipment used in construction work on railroads, steam shovels and all railway and industrial machinery of every kind and nature. The opportunity for such an enterprise is indicated in the fact that there are only three railroad shops located in New Orleans, belonging to individual trunk lines, and these shops have not extensive capacity. The bulk of repair work accumulating in this district is therefore sent to larger shops many miles distant from here. It is the purpose of the International Car Co. to provide such

facilities here as will obviate the necessity of shipping cars a long distance for repairing and rebuilding.

As the prices paid for repairs of railway cars are fixed throughout the United States by standard scale agreed upon by the railroads, with a standard percentage of profit allowed, and New Orleans being so very advantageously located for the supplying of raw material, particularly lumber (the principal material used), and iron and steel, and the cost of labor at New Orleans being as low or lower than at other points where similar plants are located and operating with most satisfactory results, the success of this company seems to be assured beyond question, and its location in New Orleans, with the backing of representative business and financial interests in this city and Chicago, makes the enterprise a notable addition to the industrial development of New Orleans.

A financial transaction of notable importance and significance which occurred during the past week is the exercise of an option by the banks of New Orleans, by which these associated banks have taken over \$2,385,000 of treasury bonds of the New Orleans Railway & Light Co. at 75 and interest. The significance of the transaction lies in the improved business and financial conditions in New Orleans which the deal indicates. The history of the transaction is, briefly, this:

On liabilities contracted some years ago the New Orleans Railway & Light Co. owed about \$2,000,000 to banks in the North and in Europe, which indebtedness was in the nature of a floating debt. At the time the obligation was incurred bonds of the company were selling somewhere between 85 and 90. Because the income of the company was insufficient to keep up improvements and pay dividends on preferred stock the company found itself unable to borrow additional money, and was being called on to put up additional collateral to protect the loans. In April, 1907, an issue of \$5,000,000 6 per cent. gold debenture notes was proposed, and these securities were offered to the public. Takings to the amount of \$1,266,000 exhausted the capacity of the market, and at that time, with the 4½ per cent. bonds of the company, payable in 1935, selling at 59, the New Orleans Railway & Light Co. made a deal with four of the leading banks of New Orleans, by which \$2,385,000 treasury bonds which had been reserved for improvements were optioned to the associated banks at 75 cents on the dollar and interest. By this deal the railway company secured about \$1,800,000 with which to take care of its floating obligations. With the improved business and financial conditions of New Orleans, and by reason of the excellent present management of the City Railways Co., the bonds of the company have increased in value until as high as 81¼ has recently been paid. On this showing the banks have exercised their option and taken over the \$2,385,000 treasury bonds under contract. It is understood that offers for these bonds have been made by outside parties, and it is the expectation that the entire issue will be placed in financial centers elsewhere at an early date.

The transaction not only indicates improved financial and business conditions at New Orleans, but also shows the favorable condition in which the New Orleans Railway & Light Co. now finds itself. With a surplus of \$500,000 in the treasury at the present time, it is furthermore relieved from any embarrassment in the way of taking up any part of the \$1,800,000 obligation or of putting up additional collateral to cover this debt, and it is obligated only to provide interest on the bonds payable in 1935. It will also be relieved of the necessity of offering any further part

of the \$5,000,000 issue of 6 per cent. gold debenture notes, and on the showing thus made all the securities of the company are showing a continued increase in value.

A new union depot for all the railroads entering the city is the possible outcome of a conference held here this week between Mayor Behrman and other city officials and a delegation from the Texas & Pacific Railroad Co., headed by L. S. Thorne, vice-president and general manager. While nothing so definite as even a proposition from either side resulted from the conference, yet there was a quite complete discussion of tentative plans, and an indication was given of the direction and steps that will be taken by negotiations from now on. As far as the matter has gone, there has been discussed the possibility of the city leasing for a long term of years to the Texas & Pacific Company a plot of ground at the foot of Canal street, just across Canal street from the present L. & N. station, on which there would be room sufficient for a passenger station covering, with tracks and sheds, a space 400x800 feet, or more, in dimensions. It was tentatively suggested on the part of the city that the Texas & Pacific Company should build the station, which would cost somewhere between \$300,000 and \$500,000, and the city should own and operate it as a union station. Out of rentals and charges to be assessed other roads using the station the city would eventually repay to the Texas & Pacific the cost of the improvement. The present status of the matter is that the project will first have to be submitted to George J. Gould, president of the road, and when a plan suitable to him has been worked out it will be submitted to the City Council of New Orleans for action by that body. There has been a strong effort made to induce the Texas & Pacific Company to give better terminal facilities here, and it is a general hope, indulged in even by the officials of the road themselves, that some plan may be worked out along the lines under discussion at this time.

ALBERT PHENIS.

#### 400 H. P. Hydro-Electric Plant.

[Special Cor. Manufacturers' Record.]

Lawrenceburg, Tenn., December 3.

The hydro-electric power plant for Lawrenceburg, Tenn., is now nearing completion. Briefly, this development is primarily for furnishing power to pump water and for electric lights. There is about 400 horse-power available for industrial or other purposes. The project as designed by Walter G. Kirkpatrick, C.E., Jackson, Miss., consists of a concrete masonry dam 200 feet long and 20 feet high across Shoal Creek at a point where the creek forms a complete horseshoe bend. By a tunnel 300 feet long and 10 feetx10 feet in area through hard flint rock the stream is diverted, giving a total head of 35 feet. A reinforced concrete power-house 22x60 feet is built on the lower side or outlet of the tunnel. Two twin turbines and one 250-kilowatt generator, direct connected, are placed above the high-water mark, with room for additional machinery when needed. The current generated is carried to town and to a bold freestone spring of 1,500,000 gallons capacity per day, where an electric pump is installed to pump direct to water tower of 100,000 gallons capacity and a distribution system of four and one-half miles of pipe.

Great credit is due to the enterprise of a town of 2500 population in inaugurating this plan and completing it in a panic year, and so far without outside financial assistance, though the town is indebted to liberal terms of credit given by the Allis-Chalmers Company, Milwaukee, Wis.; Davis Foundry & Machine Co., Rome, Ga.; R. D. Cole Manufacturing Co., New-

nan, Ga.; Sheffield (Ala.) Cast Iron Pipe & Foundry Co., and Rensselaer Manufacturing Co. for machinery and materials. The cost of the plant will be approximately \$65,000. It is the purpose of the town to ask the Legislature in January to pass an enabling act for a bond issue to cover the cost of plant, and the corporation will be pleased to hear from bankers and brokers in regard to same.

HOWARD NEELY (Contractor).

#### WATER-POWER UTILIZATION.

##### A Study of the Potentialities of the Coosa and Alabama Rivers.

Under the policy adopted several years ago of trying to interest private capital in the development of the water-powers on the Coosa River and thereby to aid the improvement of the river for navigation, Mr. W. P. Lay of Gadsden, Ala., took up the matter upon the line not only of developing as nearly as possible the whole stream, but also of locating manufacturing plants of all kinds all down the valley, and to utilize the power for street railways, manufacturing and lighting, and thereby to conserve the supply of coal of the State. At the recent meeting of the Mobile Basin and Tennessee River Improvement Association Mr. Lay presented an elaborate paper bearing upon the richness of Alabama as to water-powers, but dealing especially with the Coosa and Alabama rivers. He said:

"Alabama is rightfully termed a River State, for perhaps no State in the Union is blessed with a more thorough and perfect system of waterways than Alabama. With the Tennessee bordering on the north, the Chattahoochee on the east, the Tombigbee and Warrior on the west and the Coosa and the Alabama rivers, the third largest streams in the South, not only wending their way practically through the center of the entire length of the State, but their tributaries, the Etowah, the Oostanaula, the Conasauga and the Coosawattee, all under the laws, navigable streams of the United States, reach away up into North Georgia and offering to this rich and fertile section a splendid water route of transportation, over the bosom of which to transport their great stores of commerce to the Gulf port and thence to the Orient through the Panama Canal.

"Then, in addition to this, these rivers are not only valuable for navigation, but many of them, especially the Coosa, are equally valuable for the development of power, which, if the plans for the improvement of this river are properly designed, with due consideration for conserving both of these valuable agencies of human affairs in the most minute detail, their joint development and improvement can be most economically accomplished, with the promise also of the most economic results from their joint operation.

"Perhaps it would not be out of place for me to say in this connection that I have spent many of the most useful years of my life, as well as many of my most useful dollars, in my study and efforts for the economic improvement of this splendid waterway, that best results might be obtained therefrom.

"At first we tried to obtain these joint results through the agency of our National Government, as the observing friends of the Coosa well know, and which is evidenced on page 18 of the original Memorial of the Coosa River Improvement Association, which, as chairman, I had the honor of compiling, and which is also evidenced in an address I had the honor of delivering before the Alabama Commercial and Industrial Association at its annual meeting in Montgomery, Ala., June 20 and 21, 1901, but after many years of fruitless efforts in that direction, and after a consultation with some of the remaining

friends of the Coosa, we changed our plan of efforts so as to try to bring about these much-needed and valuable improvements by trying to interest private capital in the development and utilization of the water-power in conjunction with the Federal Government in improving the stream for navigation.

"It is not to be thought for a moment that by these suggestions I would intimate that the Government should relax its work of itself building locks and dams in the aid of navigation, but that by working in conjunction with private enterprises in the development of water-powers at some points, and by prosecuting its own separate operation at others, the work of improving navigation will be greatly facilitated and the expense of the Government greatly reduced at the same time.

"With this end in view, and in connection with a series of water-power developments I am undertaking on the Coosa River, which I expect to very materially aid navigation, I secured the services of one of the most able hydraulic engineers in the United States, who made a thorough study and preliminary survey of the Coosa River and its tributaries from away up in the Appalachians down to where it forms the Alabama; that in connection with the able engineers of the United States Government the most perfect dual system of navigation and power development, together with the most perfect system of impounding or conserving the waters of these streams in aid of such navigation and power development might be designed. The result of this investigation is both interesting and instructive, and if properly handled promises the most happy results."

Mr. Lay touched upon the questions of navigation and of forest preservation, epitomized the facts of horse-power in manufacturing as related to wage-earners and value of products, and said:

"In figuring on the possibilities of water-power developments on an unconserved stream we can only figure on the results obtainable from the minimum discharge of the stream, counting all in excess of this to be wasted.

"The minimum discharge of the Coosa and Alabama rivers is approximately 2200 cubic feet per second. This discharge will give 200 horse-power for each foot of fall. There are 300 feet of available fall on the Coosa River for water-power development between Greensport and Wetumpka. This would develop 120,000 12-hour horse-power.

"It would take to develop this amount of horse-power per annum by steam, according to standard tables, 1,242,000 tons of coal, and, when valued at \$2 per ton, would reach the enormous sum of \$2,484,000.

"This is not all. With the proper conservation of the waters of this stream, this power can be trebled, and instead of 120,000 horse-power as produced by the minimum discharge it can be safely increased by conservation to 360,000 horse-power. This means that it would require 3,726,000 tons of coal per annum to produce by steam the power of this river, which would cost \$7,452,000 per annum.

"Suppose, for a moment, that the coal fields of Alabama were sliding down an incline and pouring off over a precipice into fathomless space at the rate of 3,726,000 tons per annum. How long would it take the people of the United States to get busy and try to stop such a waste of a God-given resource? Yet what else are we doing when we sit idly by and let the water of this stream go to waste over a precipice while we, ourselves, burn up the coal?

"This, too, is only one instance. Think of the Tennessee River and its great pos-

sibilities, together with the many other streams of less importance!

"The engineers of the United States have designed and redesigned plans for the improvement of the Coosa and Alabama rivers for navigation, though they have always been frank to say that they were apprehensive as to the possible success on the Alabama under the plans recommended for its improvement, from the fact that the Alabama River flows through seemingly an alluvial soil, and is therefore subject, more or less, to shift, and change its channel and the formation of sand bars. Hence the Alabama River has been a great obstacle in the way of a more hearty approval of the improvement of this system of rivers to through navigation to the Gulf.

"To improve this system of rivers so it could be made a practical success, adequate to the demands of commerce at this age, six feet of navigation would be necessary. With the minimum discharge of 2000 to 2500 cubic feet of water per second on the Alabama at low-water stage, it is thought that only four feet of navigation could be assured under the plans suggested for its improvement. Therefore it follows that probably any increase in the navigability of the Alabama River above four feet depends on the impounding of water from which an increased discharge may be had to carry it over the low-water period, which generally does not exceed 60 or 90 days, and that the extent of the possible increase to navigation depends on the quantity of water stored.

"The conclusion arrived at by a rough study of the possibilities of the improvement of navigation on this river by a storage system is as follows, and will probably be interesting; hence I reproduce it:

"A discharge of 6000 cubic feet per second, confined in a channel 300 feet wide, will give, with the average slope of the Alabama River of 0.316 feet per mile, a depth of eight and three-quarters feet.

"The same discharge and width of channel, with a slope of 0.5 feet per mile, the rate of fall over the Canton Bar on the Alabama River, will give a depth of seven and one-half feet.

"The extreme low-water discharge of the Alabama River of approximately 2000 cubic feet per second will give, with the same width of channel, a depth of four feet.

"Therefore it follows that an additional discharge on the Alabama River from a storage on the Coosa River or its tributaries in Georgia of 4000 cubic feet per second will give approximately four feet additional depth, which, with the same width of channel, will make in all seven and one-half or eight feet of navigation on the Alabama River possible at all times.

"Now, it is estimated that 35,000,000,000 cubic feet of water impounded will be sufficient to furnish the additional discharge of 4000 cubic feet per second long enough, with the probable aid of intervening showers, to maintain a continuous flow of 6000 cubic feet of water per second on the Alabama River at all times, and that this will, with the above channel improvement, maintain at all times eight and three-quarters feet of navigation on all of the Alabama River except the Canton Bar, and that it would maintain seven and one-half feet over this objectionable point.

"Then, in addition to this, if such a storage is obtained on the Conasauga, Coosawattee or the Etowah rivers in Georgia, all tributaries of the Coosa, the flow passing down the Coosa will not only insure six to seven feet continuous navigation on the river between Rome and



Gadsden, but will aid very materially in the proposed slack-water navigation on the lower Coosa, to say nothing of the amelioration of the floods at Rome and the large contribution it would make to the development of power as heretofore shown.

"It seems that the Coosa and Alabama rivers and their tributaries in Georgia contain practically all of the essential advantages necessary to make a system of storage of this kind most desirable and profitable, for the tributaries of the Coosa, cutting through the mountains of North Georgia, form a number of desirable sites at which to construct the necessary storage dams, while every cubic foot of water discharged therefrom will not only lend its mighty force to the turning of the wheels of commerce over and over again as it passes each water-power development, wending its way on down to the Gulf, but will aid in floating boats on the bosom of these splendid streams, laden with much of the very commerce of its own creation. On one of the three tributaries of the Coosa River in Georgia there is one especially desirable reservoir site where a short but high dam can be built, which, it is believed, will store the requisite amount of water (35,000,000,000 cubic feet) necessary to supply the needed increased discharges on the Coosa and Alabama rivers as heretofore shown, and it is roughly estimated that it will probably require only about \$2,500,000 to procure and construct this adequate storage."

#### SOUTHERN COMMERCE CONGRESS.

##### A Desire to Emphasize a Section's Opportunities.

[Special Cor. Manufacturers' Record.]  
Washington, D. C., December 8.

The Southern Commercial Congress, held here this week, was the outcome of a suggestion adopted by the Association of Southern Commercial Secretaries at its Chattanooga meeting last summer to seize upon the first opportunity of a gathering of general business men of the country to hold a special simultaneous meeting of Southern interests, to which these men could also be drawn, in order to emphasize what the South has to offer in the way of opportunities and the steps that are being taken to develop them. This opportunity came this week, when business men from all parts of the country were assembled here to attend some of the following conventions: National Conservation Commission, National Council of Commerce, National Rivers and Harbors Congress, and the hearing before the House of Representatives committee on agriculture of those favoring the passage of the Appalachian-White Mountain forest bill now before Congress.

The committee having the meeting in charge held that a splendid opportunity was presented to them to reach business men from all parts of the country whom it would be possible perhaps to never attract under any other circumstances. The result has been that men from other sections of the country outside of the South have heard the South's resources and opportunities discussed by men who are acknowledged by all to be thoroughly posted on their subjects.

The program included addresses by Secretary of Commerce and Labor Oscar S. Straus, chairman of opening session, on general requirements for a broad development of industry and commerce; by Surgeon-General Wyman, United States Army, on "Southern Health Conditions, Climate and Temperature;" by Secretary of War Luke E. Wright, on "The Influence of the Panama Canal on the Industrial Development of the Nation;" by Mr. John M. Parker of New Orleans,

chairman of second session, on those steps to be followed by the South to secure its widest development; by Col. C. P. Good-year of Brunswick, Ga., on "Ports of the South and Foreign Trade;" by Mr. John A. Fox, special director National Rivers and Harbors Congress, on "Waterways of the South;" by Mr. John F. Wallace of New York, on "Southern Railroads and Their Needs;" by Mr. Frank S. Washburn, C.E., of Nashville, on "Water-Powers of the South;" by Chief Forester Gifford Pinchot of the Department of Agriculture, on "The Commercial Significance of Appalachian Forests;" by Prof. L. C. Glenn of Vanderbilt University, on "Coal Resources of the South;" by Mr. Edwin C. Eckel of Washington, D. C., on "Iron Industry of the South;" by Dr. C. W. Hayes, chief geologist, United States Geological Survey, on "General Mineral Wealth of the South;" by Mr. D. A. Tompkins of Charlotte, N. C., on "Cotton Monopoly and Cotton Manufactures;" by William J. Oliver of Knoxville, on "Building Materials of the South;" by Ambassador James Bryce of England, on his impressions of the South; by Mr. Charles Hall Davis, president of the Petersburg (Va.) Chamber of Commerce, on "Wise Development and Intelligent Conservation of Southern Resources;" by Judge George Hillyer of Georgia, on "The South in American History;" by Dr. J. A. Bonsteel of the Department of Agriculture, and Mr. Clarence H. Poe, editor of the *Progressive Farmer* of Raleigh, N. C., on "Southern Agriculture," and by President Edwin A. Alderman of the University of Virginia on "Education."

Among the resolutions adopted before adjournment was the following:

"Railroad construction has been extensive, but the rapid commercial growth of the South requires an enormous increase in its railroad facilities to transport to market its many and varied products. The construction of such adequate facilities can be accomplished only by assuring the holders of capital that such enterprises will be safeguarded by conservative and constructive legislation, and we urge upon our Southern legislators the wisdom of such policy and condemn any agitation leading to the contrary. We favor a spirit of co-operation between the people and railroads and other corporate interests to the end that the required confidence of investors may be established in the securities of the corporations of the South."

WM. H. STONE.

#### RIVERS AND HARBORS.

##### Program of the Congress in Session This Week at Washington.

[Special Cor. Manufacturers' Record.]  
Washington, D. C., December 9.

Following a political campaign in which the leading parties of the country were committed by their platforms to liberal provision through Federal legislation for the adequate and comprehensive improvement of the waterways of the country, and under the inspiration of the hearty sympathy of the President-elect, the fifth convention, in session this week, of the National Rivers and Harbors Congress sets a notable mark of progress upon the great movement connected with the full development of national resources. The program includes addresses by Vice-President Charles W. Fairbanks; Right Hon. James Bryce, ambassador from Great Britain, on the waterways of Great Britain; Mr. Andrew Carnegie; Congressman Joseph B. Ransdell of Louisiana, president of the congress; Judge George Hillyer of the Georgia Railroad Commission, on the necessity for overland canals; Samuel Gompers, president of the American Federation of Labor, on labor's interest in waterways improvement; Governor George

E. Chamberlain of Oregon, on the interest of the Northwest in national rivers and harbors policy; ex-Mayor Seth Lowe of New York; Governor Jared Y. Sanders of Louisiana; Congressman Champe Clark of Missouri; Prof. W. D. Lyman of the State of Washington; ex-Senator Anthony Higgins of Delaware; Speaker Joseph G. Cannon of the House of Representatives; Mr. Joaquim Nabuco, ambassador from Brazil, on the rivers and ports of Brazil; Secretary James R. Garfield of the Department of the Interior; Hon. W. C. Edwards of Canada, on the waterways of Canada; President James W. Van Cleave of the National Association of Manufacturers, on manufacturers' interest in waterway improvements; Mr. J. A. Ockerson, member of the Mississippi River Commission, on the utility of waterways in transportation; James Rawlings of the United Commercial Travelers of America; Calvin Tompkins of the New York Board of Trade and Transportation; Governor Charles S. Deneen of Illinois, on the work done by that State for waterways; Senator Robert L. Owen of Oklahoma; State Engineer Frederick Skene of New York, on the barge canal of that State; Congressman James T. Lloyd of Missouri; Col. C. P. Goodyear of Georgia, on the interdependence of rail and water transportation; Governor N. B. Broward of Florida, on waterways and cheap transportation; Congressman James H. Davidson of Wisconsin; Secretary James Wilson of the Department of Agriculture, on the relation between forests and navigable rivers; President J. Horace McFarland of the American Civic Association, in an illustrated lecture on the value of beauty in waterways, and short talks by delegates from various States.

#### IN TRANSITION STATE.

##### Conditions in the Birmingham Iron Market.

[Special Cor. Manufacturers' Record.]  
Birmingham, Ala., December 7.

There is but one interest that says to the buying contingent of the iron trade: "We will sell you any reasonable lot of iron on the basis of \$13 for No. 2 foundry; deliveries to cover the first half of 1909." Some of the other interests are asking higher, and some have practically withdrawn from the market because they do not desire to ask higher price and because they have entered on their sales book all they care to enter at prevailing prices. Those who had options out to the close of the week have withdrawn them and have advanced the price to a basis of \$13.50 for No. 2 foundry, delivery extending over the first half of 1909. While it is distinctly not intended to say that no iron can be bought at \$13 basis for delivery the first half of 1909, it is intended to say that it can be had in only limited volume for that price. And it can be said with equal confidence that the conditions of the market justify the opinion that the general price will be on the basis of \$13.50 before the close of the week.

Some iron was sold on the basis of \$12.75, and there is a suspicion that some was sold as low as \$12.50. But these sales were of lots on which the owners desired to realize. In short, they represented resales of iron bought for a turn. The turn showed a profit, and it was taken. Regular iron always commands a premium over such lots, and the price they brought excites but little comment. It had no effect upon quotations of regular iron. In the matter of business in iron the Sloss-Sheffield Company again was the leading seller last week, its sales aggregating 13,000 tons, all on the basis of \$13 for No. 2 foundry, and some covering in delivery all of the first half of 1909.

The leading company is not taking much

interest in the market if you measure it by the volume of its sales. It is selling only to protect and hold its trade, and then only in limited amounts. The same can be said of some others. As to specific sales, one is reported of 6000 tons, delivery the current quarter, on basis withheld. It is supposed to vary from the regular quotations, as it is covered by "private terms." There was another sale covering 12,000 tons of iron that was not furnace iron in the meaning that it belonged to any furnace interest. The particulars of the sale are as yet not known here.

There were some sales of No. 2 soft and some of No. 3 foundry on the \$13 basis, but they were of very moderate volume. The solid fact is that while the lower grades are in good request, they are very hard to find, and when found there is no haggling over the price. These letters gave warning on this point weeks ago.

It is a hard matter to say what is the market today, for it is in a transition shape. You can buy but little at the inside prices given, for the reason stated. If a few sales should be made at \$13.50 all would line up and ask that figure. At this writing it looks as if that will happen. Those who have no iron to sell are opposed to any further advance, but the fellow who has it for sale wants for it all he can get.

The market for scrap iron was very strong the past week, though the business done was not great in volume. But the holders seemed to be imbued with plenty of faith in the ultimate outcome of results. Quotations as furnished by Weller & Co. are as follows:

Old iron axes, \$17.50.  
Old steel axes, \$16.25.  
Old iron rails, \$16.25.  
Old car wheels, \$14.  
No. 1 railroad wrought, \$14.50.  
No. 2 railroad wrought, \$12.75.  
No. 1 country wrought, \$11.25.  
No. 2 country wrought, \$10.50.  
No. 1 malleable, \$11.50.  
Machinery castings, \$11.50.  
Wrought-iron pipes and flues, \$11.50.  
No. 1 steel, \$11.  
Stove plate, \$10.  
Cast borings, \$7.

The Rust Boiler Co., Pittsburg, Pa., is making rapid progress in the construction of the 11,000-horse-power plant for the Tennessee Coal, Iron & Railroad Co. at Ensley. This plant, when completed, will be one of the most complete and up-to-date plants in the whole country, and the Tennessee Company is sparing no expense toward this end. There are 22 units of 500 horse-power each, designed for 200 pounds working pressure. Each boiler is being set independently, and each has an independent steel stack 70 inches in diameter by 120 feet high, lined with fire-brick for 50 feet. In addition to the Rust boilers, there are about 6000 horse-power of Stirling boilers already in operation, making a total of 17,000 horse-power in this plant. All of the boilers will use blast-furnace gas, but are also equipped for burning coal if necessary.

The various pipe works are full of business already captured and in sight. One of the leading interests says: "During the past week specifications have been received covering the purchase of 1500 tons to be made by the Indianapolis Water Co. on the 15th of this month. The St. Paul Water Co. will buy 2000 tons on the 14th, and Chicago will buy 15,000 tons on the 15th of this month. There are numerous other smaller lettings, aggregating, say, from 3000 to 4000 tons. The recent advance in the iron market has stimulated buying on the part of all the water companies and municipalities, as a further advance after the turn of the month is anticipated.

"The letting at Detroit for 11,000 tons of

42 and 48-inch pipe brought the following prices, reduced to a Birmingham basis: Massillon Iron & Steel Co., \$18.40; United States Pipe Co., \$18.70; American Car & Foundry Co., \$19.05; Dimmick Pipe Co., \$20.

"As for quotations, it is noted that some of the foundries are quoting at an advance of \$2 per ton for delivery in 1909."

It can now be stated with absolute certainty that the great Portland cement mill which has been incubating for two years or more has at last hatched out, and will in due course be added to the list of our industries. The assembling of the necessary properties was entrusted to F. & M. Sloss, who have been unceasing in their efforts to remove all obstacles to the successful launching of the enterprise. The capacity of the mill will be 3000 barrels per day, and the capital involved will be \$1,000,000. The location is in Blount county, and on the line of the Louisville & Nashville Railroad. Details have not yet been made public, but they will probably be divulged during the week.

It is announced that the Wood & Crabbe Grain Co., Ltd., has purchased a 200-foot tract on Avenue A, between 13th and 14th streets, and will build a corn and meal mill at once. It is stated that the plant will be the largest of the kind in the district. Its capacity, it is said, will be 5000 bushels per day, or 2000 more than any similar mill in the district. Mr. Wood has just returned from Indianapolis, where he purchased the necessary machinery for the mill. The present expenditure will be about \$50,000. J. M. K.

#### PUSHING PUBLIC WORK.

##### Municipal Improvements Under Way at Rocky Mount.

[Special Cor. Manufacturers' Record.]  
Rocky Mount, N. C., December 5.

The advance from \$2,250,000 in assessed valuation of property within the corporate limits in 1906 to \$3,451,000 in 1908 indicates how this city is broadening in growth and prosperity. During the same period the population has increased from 8000 to 11,000. This increase was much greater than the increase from 1904 to 1906, which indicates that the city is even increasing greatly in its rate of increase.

Many people are apt to look upon this city as a railroad town, because the large shops and yards of the Atlantic Coast Line are here, but, while this is the biggest industry in Rocky Mount and may tend to overshadow others, the closer observer can see many evidences of growth in other lines that are making for a future city of continually increasing and expanding activities.

At present the city is especially active in municipal improvement work, having under way the paving of several streets with bitulithic and macadam at a cost of \$60,000, the erection of a new graded high school at a cost of \$35,000, and the remodeling of its electric-lighting plant and the reconstruction of its water-works system at a cost of \$65,000. A new hostelry, to be known as Hotel Ricks, is being erected just opposite the passenger depot at a cost of over \$100,000 for the building and equipment. It is of colonial design, four stories in height, and covers an area of 84x156 feet. Brick and stone are being used on the exterior, while the interior will be equipped with full fire-protection features. There will be 75 rooms in all, 60 of which will have private baths. Other facilities provided include electric lights, steam heat and electric elevator. Thomas L. Bland of the Cambridge Hotel is behind the new hotel project, and will be in active charge when it opens next May. Leitner & Wilkens of Wilmington, N. C., were the architects, and D. J. Rose & Co. of Rocky Mount, the contractors.

The principal industries of Rocky Mount include a number of large lumber and woodworking plants, several cotton and hosiery mills, cottonseed-oil mill, tobacco factories, stemmeries and prizeries, brick plants, in addition to numerous smaller industries of a varied character.

The large shops and yards of the Atlantic Coast Line are located at South Rocky Mount and employ about 1500 men. The yards have a total length of trackage of 50 miles, and said to be only second in size in the country to those at Altoona, Pa. Here thousands of cars are handled daily, classified and made up into trains for shipment to destination. A large ice plant is also maintained at Rocky Mount, where all refrigerator cars loaded with truck are iced before shipment North.

Taking these various activities into consideration, together with the fact that this city is a junction point on the main line for a number of branch lines reaching out in many different directions, one can easily realize the opportunities which ought to be available here for the upbuilding of many varied industries as well as being a good distributing center for all kinds of equipment and supplies.

WM. H. STONE.

#### CHARLESTON AND OIL.

##### Nearness of the Natural Fuel Accelerating Industry.

[Special Cor. Manufacturers' Record.]  
Charleston, W. Va., December 4.

Charleston, struck less hard by the panic than most of the towns of the country, seems to be rallying rapidly from the blow and getting ready to take advantage of the opportunities that everybody believes are coming to the entire country. The fact is that the town was and is behind its natural trade territory in development, and even the dullness of the last 12 months furnished activity enough to business institutions here to keep things moving at a pretty good gait all the time. The banks, while not enlarging their lines of discount, have not shrunk them so as to hurt regular customers engaged in safe and legitimate business, and all worthy enterprises have been so well protected that there have been practically no failures. In consequence, now that business is about to resume its normal activity, this city is ready to spring forward like a well-rested racer, eager to run for championship stakes.

The development of two oil fields, one north and the other southwest of the city, and each but a few miles away, has had something to do with keeping things moving, and the outlook is excellent for still greater acceleration as more wells are brought in and the producing territory is found to cover wider and ever wider limits. These two fields are less than 20 miles away as the crow takes his course, and it is believed that the drill will be sent down to strike the pool somewhere on the line between the two, and considerably closer to Charleston than either. These oil developments must in the nature of things make Charleston a proper place for the location of branch houses of the big concerns that furnish drilling supplies and other of the paraphernalia necessary to the trade of putting down and caring for oil wells. The progress of drilling has been delayed in a good many cases by the extremely dry weather, which has caused a scarcity of water and made work impossible in a number of places. But new rigs are going up, new strings of tools are being hauled in, and the next 12 months will see great activity throughout this entire section. Every now and then a drill sent down for oil has struck a big flow of gas, giving assurance that that attractive manufacturing fuel abounds in unrivalled quantities within easy reach of Charle-

ton, and that it is destined to bring many more manufacturing concerns to this city.

The one thing that now has an unpromising look in the industrial affairs of this valley is the condition of the coal business. The coal operators of the Kanawha field have recently addressed a communication to miners with the purpose to secure a reduction in the price of mining. The Kanawha field proper is organized; that is, it is worked by miners who are members of the organization known as the United Mine Workers of America. An agreement was made a year or two ago between the operators and the miners, under which coal has been produced since. The business at the time this agreement was entered into was in such condition that the operators felt they could afford to produce coal under it, even though, according to their statements, they could not make so much profit as their competitors in the non-union fields. The Kanawha field is surrounded by fields in which the miners are not organized, and in which, according to the claims of the operators, coal is produced at from 18 to 20 cents less per ton. Now that the demand is small and the stock on hand throughout the country large, these operators are appealing to their miners to agree to a modification of the scale so that the Kanawha mines may be able to compete for business with their non-union rivals. The appeal was addressed in the first place to the national managers of the union, where it met with a cold turn-down. Now the operators have taken it up with the miners themselves, whom they hope to make see things in a different light from that with which they were viewed at headquarters in Indianapolis. Failure to agree to a modification must result, so the operators say, in one of two things—either the non-unionizing of the mines or their closing, for they declare they cannot pay the prices now in effect for mining and run their mines in competition with those on New River, on the Guyan and along the Norfolk & Western Railroad. The outcome is fraught with great interest to Charleston people, for a general shut-down of mining operations throughout the Kanawha field would spell disaster for many business enterprises.

Charleston has just entered upon the most extensive system of municipal improvements yet undertaken. Only a short time ago a bond issue of \$300,000 was voted for the purpose of completing the sewer system then well under way, and to pave some five miles of streets not yet improved. The bonds were sold, the money secured, and now the work is being begun, and will not be stopped until practically every street in the city is paved from curb to curb. A committee of three has gone to New York to examine and report upon the best kind of material to be put down, and the supposition is that at least a part of the new work will be cressed wood blocks. When this undertaking is completed Charleston people believe they will have the best-paved town of its size in the country.

GEO. BYRNE.

#### A Southern Power Contract.

The Southern Power Co. of Charlotte, N. C., has completed arrangements for the development of another of its water-power properties in South Carolina. It has awarded contract to B. H. Hardway of Columbus, Ga., for the construction of the dam and power-house at Ninety-nine Islands, on Broad River, seven miles from Blacksburg, S. C. About 20,000 horsepower will be developed for transmission by electricity to manufacturing and lighting plants, and it is understood this development will increase the company's total available horse-power to 110,000.

The Ninety-nine Islands dam will be 1100 feet long and 90 feet high, containing 170,000 cubic yards of masonry—concrete and rubble. The construction contract involves about \$650,000, and is to be completed within 15 months. In awarding this contract the Southern Power Co. takes another step forward in its extensive plans for furnishing electricity generated by water-powers in the Carolinas.

#### MEMPHIS ON THE MOVE.

##### Public Improvements Under Way and Contemplated.

[Special Cor. Manufacturers' Record.]  
Memphis, Tenn., December 5.

Two years ago it was made possible for Memphis to proceed, under the front-foot assessment law, with street improvements, and since then 22 miles of new streets have been built and many more miles projected. The city pays one-third of the cost and property-owners two-thirds, being given five years to pay off their pro rata in annual instalments. Where the street railway runs the street-car company is compelled to pave between its tracks and for two feet on each side. The city's pro rata has been paved out of current taxation, but the Legislature will be asked to allow bonds to be issued so that more work can be accomplished and the current rate of taxation may be brought down. The Legislature will also be asked to extend the corporate limits of the city, so that the 1910 census will show a population of more than 200,000.

The new courthouse, costing \$1,500,000, is about completed, and presents a most imposing appearance.

The new union depot will advance property values and prove a Godsend to the entire community. Repeated notice of preliminary work on this have appeared in the Construction Department of the MANUFACTURERS' RECORD.

It is estimated that the artesian water system of Memphis, which originally cost \$2,500,000, is now worth \$6,000,000.

The fine system of public parks were purchased by Memphis at the right time, and have greatly increased in value. Col. Robert Galloway has kept his shoulder to the wheel and persistently pushed every park project to success. If every department of civic improvement and development had such an ardent advocate, Memphis would be possessed of an ideal spirit, but the younger generation is wide-awake and giving evidence of an interest in civic affairs hardly shown to such an extent by the older and more conservative element. An offer has already been made for the proposed million-dollar 50-year 4½ per cent. park bonds, and it is generally conceded that the Legislative Council and the Memphis Park Commission will jointly ask for the passage of an act. Half of this amount is needed to buy the Southern Railway freight yards in the center of the town, on which the city has an option. The other half-million is needed to pave 19 miles of parkway and 12½ miles of driveway in Overton and Riverside parks. This would necessitate a special park tax of 15 cents. The city is now assessed a 20 per cent. park tax.

President B. L. Winchell of the Chicago, Rock Island & Pacific Railroad was in Memphis yesterday, and expressed himself as greatly surprised at the growth of the city since his last visit, four years ago. When asked about the new union station and the failure of the three roads to agree as to their share of expenses, Mr. Winchell said that the station would undoubtedly be built, as, other considerations aside, the railroads must keep faith with Memphis, especially as the terminal company has accepted the union depot ordinance.

C. F. JOHNSON.



**GEORGIA MARBLE QUALITIES.****Characteristics of the Vast Deposits in the State.**

[Special Cor. Manufacturers' Record.]  
Canton, Ga., December 4.

Georgia has a marble belt that extends through a number of counties and is said to be the largest in the United States. The immense quarries here are the natural repositories of a beautiful grade of marble, known as the dolomitic variety. An analysis of the rock gives the following result: Calcite, 97.32 per cent.; magnesite, 1.60 per cent.; iron peroxide, .26 per cent.; aluminum oxide, .25 per cent. This shows an almost pure form of dolomite, a double carbonate of lime and magnesia, the iron and aluminum oxides acting as coloring agents.

The most important result determined by the analysis is the preponderance of calcite over magnesite. The appearance of magnesite in large quantities injures the adaptability of a marble to building purposes, because this constituent is rarely found of cohesive strength. Georgia marble contains only 1.60 per cent. of magnesite, and, because of this, is recognized as one of the most durable forms of building stones. Its crushing strength is 12,000 pounds to 15,000 pounds per square inch.

Besides durability, it also possesses latent artistic qualities which are used to good effect in monumental as well as construction work. A monument to the superior qualities of Georgia marble is the Candler Building of Atlanta, Ga., which ranks as one of the most substantial and beautiful structures in the country. The artistic effect of the interior of the building produced by an appropriate use of dark marble beautifully veined with white offers a striking contrast to the imposing white exterior.

The color variations are due to the tractability of limestone, and are caused by the action of iron oxide or other chemicals on the marble during its formative period. They are in great variety and in all kinds of combinations. In one district there are the white Kenesaw, the beautiful pink Etowah and the silver gray Cherokee, while in another the veined and mottled creole when polished gives the effect of a network of lines on a black background.

This translucent stone of crystalline texture is eagerly sought after for decorative work in buildings and for monuments, and compares most favorably with the famous Parian marble. Furthermore, on account of its great density, it is almost impervious to liquids, the absorption of moisture by this stone being only six-one-hundredths of 1 per cent. This feature is of great importance as showing that the stone is invulnerable to the attacks of time and the elements. Disintegration and decay would quickly take place with an absorption of liquids and moisture. A test of this was made by drilling a hole in the center of a piece of marble and filling it with writing ink. This receptacle was used as an inkstand for several months, but the ink made no impression on the marble. Similarly an examination of immense deposits of exposed marble in this section disclosed no alterations, discolorations or decompositions; if any changes had taken place, they were imperceptible.

Although brittle, the marble admits of perfect cleavage, so that a piece measuring four feet long and two feet wide can be reduced to one-quarter of an inch in thickness. These thin plates show great strength, and are utilized in a variety of colors for transoms and memorial windows.

A quality of marble not to be overlooked in the consideration of building material is its ability to withstand great heat. In the devastating fire in 1903 at Paterson, N. J., many marble buildings withstood

the conflagration. On account of this, it is being used in erecting fireproof buildings, the floors and often the entire walls and ceilings being inlaid with it. It is used also in a variety of ways for minor household purposes.

Its popularity is steadily increasing, and with a grade of marble that compares favorably with that found anywhere, with modern and complete quarrying equipment, Georgia quarries have founded an enviable position in the production and sale of their product.

A. WILLIAM FIELD.

**KING OF HAY CROPS.****Results Obtained in Texas from Growing of Alfalfa.**

[Special Cor. Manufacturers' Record.]  
Fort Worth, Texas, December 4.

Alfalfa in Texas is, to the acre, far more of a money crop than cotton. Its yield is cumulative and continuous. Less friction and care in its production. It grows, yields and produces as the sun's rays shine down on it. Plant it once, and the work is done. It fructifies, procreates and multiplies in every inch of ground where it takes root. It is as prolific, generative and fruitful as the ready and handy bullrushes of the fertile Nile. Let the American farmer sit up and take heed, likewise the capitalist, investor and home-seeker looking Texasward.

Alfalfa in the Toyah Valley, Texas, grows to perfection. In this section there are fields of it grown for 17 successive years without cultivation or reseeding, whereas the average life of the plant is eight years, yielding from six to seven cuttings per year and averaging a ton per cutting, or six or seven tons per acre, valued from \$9.50 to \$11 per ton at the baler in the field. When it reaches the market it retails for \$22.50 to \$30 per ton.

According to the figures given your correspondent by some of the most prominent alfalfa farmers, an itemized statement of a single acre's yield last season would be about as follows: First cutting, one ton of hay, \$10; second cutting, 300 pounds of seed, at 10 cents per pound, \$30; third cutting, 300 pounds of seed, at 12½ cents, \$37.50; fourth cutting, one ton of hay, \$10. The total cash per acre, \$87.50. To this may be added two tons of hay from which the seeds of the second and third cuttings were thrashed, at \$5 per ton, bringing the gross receipts up to \$97.50 per acre for the season's crop.

Extensive experiments by the United States Department of Agriculture and different State experiment stations have repeatedly demonstrated the fact that one ton of alfalfa hay is equal in value for cattle to considerably more than a ton of bran; it is worth twice as much as a ton of red clover hay, six times as much as timothy hay and twenty times as much as prairie hay.

A farmer with 20 acres of alfalfa would average six tons per acre per annum, at an average price of \$10 per ton, or \$60 per acre in the field. When shipped into the warehouses for market it would be retailed at from \$22.50 to \$30 per ton. Aside from its money-making possibilities as a hay proposition, it is the best honey producer of any known plant, bees being able to make more and richer honey than from the best clover, the honey bringing a fancy price on account of its excellent quality. In addition, an acre of alfalfa will raise and prepare for the market 12 head of hogs (never injuring the hay crop), weighing 200 pounds each, or a total of 2400 pounds, at four cents per pound, at a cost of \$1 per head, yielding a net revenue of \$95 per acre.

Many alfalfa farms in Texas are making the farmers rich and independent. This plant grows like a weed. It may be

sown almost at any time of the year. With plenty of water it yields six to eight cuttings per year. This hay is able to pay its way to Houston, Galveston and Dallas from the rich Toyah Valley, and pay the owner net, loaded on cars at Pecos, \$10 to \$11 a ton.

While alfalfa is growing it will take care of from 12 to 15 hogs per acre, turning the pigs into the alfalfa in April or May and taking them out in November or December, weighing from 150 to 200 pounds each, which are placed in a close sty and fed about two bushels of corn or maize in order to harden them for shipment to market, when they are sold from four to seven cents per gross hundred-weight.

Alfalfa as a soil renewer is remarkable. On account of its long roots striking so deeply into the ground it acts as a sub-soiler, carrying air into the soil, stirring up nitrogen for future use and otherwise enriching the ground to a greater extent than the cowpea of the Carolinas or the red clover of Virginia.

Over \$200,000 have been invested in the Toyah Valley during the past year by practical farmers from the Northwest, buying lands to grow absolutely nothing but alfalfa. ALEXANDER HELPER.

**Stirring at Chattanooga.**

[Special Cor. Manufacturers' Record.]  
Chattanooga, Tenn., December 5.

December is the dulllest month in the year from the architectural standpoint. Most of the buildings commenced during the season have been completed, and a large part of the material for those unfinished has been contracted for. There is always some work going on in live cities, and Chattanooga is no exception to this rule.

Knox Bros. & Thomas, just incorporated for \$125,000, are the latest accession to our wholesale dry goods business. They will also conduct the wholesale hat business, which they have been operating as a firm. They will occupy a new five-story and basement brick building on May 1, 1909.

The Stone Fort Land Co., J. T. Lupton, vice-president and secretary, purchased a limestone hill in the center of the city, on a part of which the United States custom-house was built. This hill was leveled, after which the company built a number of large five-story buildings for different wholesale houses. They equip these buildings with automatic sprinklers and elevators. The insurance rate of about one-half of 1 per cent. and the railroad track in the rear, coupled with the fact that they are on the main business street, make them attractive. They build these buildings, which they are willing to either sell or rent. They are now erecting the building to be occupied by Knox Bros. & Thomas.

The Fuller Combing Gin Co., James T. Fuller, president, is almost ready to receive proposals for the interior woodwork, electric wiring and elevators for its new concrete and steel factory at Rossville, Ga.

The committee of the Chamber of Commerce, with Capt. Charles A. Lyerly, president of the First National Bank, as chairman, met and appointed a committee of three to report on the best site obtainable for a hotel to replace the burned Lookout Inn on Lookout Mountain.

The Black Draught Stock Medicine Co., recently incorporated for \$100,000 capital stock, has opened a sales office, and will occupy the factory building as soon as completed, which is being erected in St. Elmo (a suburb) by the Chattanooga Medicine Co.

The Cogar Creek Coal Co., E. M. Jones, president and manager, has incorporated with \$25,000 capital stock to operate mines at Wiborg, Ky.

The Chattanooga Builders' Supply Co., Porter Warner, president, has awarded a contract for the erection of a warehouse in which to conduct a cement, roofing and building-supply business. They will award contract soon for a trestle for spur track.

The Continental Coal Corporation has been incorporated for \$300,000 capital stock by Erle Martin and others to operate coal mines in Bell county, Kentucky, taking over the mines of Highland Rim Mining Co. at Rim, Ky., Black Raven Coal Co. and others. T. B. COLBURN.

**ARKANSAS PEARL BUTTONS.****One of the Thriving Industries of Clarendon.**

[Special Cor. Manufacturers' Record.]  
Clarendon, Ark., December 1.

Harvey, Chalmers & Sons of Amsterdam, N. Y., have just closed a contract with the Clarendon Button Co. to run the plant for a period of five years. This is a very important addition to the various industries of Clarendon. This company not only employs skilled labor at good wages, but also gives employment to a small army of shell diggers, great numbers of whom are now busily engaged on the mussel beds up and down White River, digging the shells for the factory. These shell diggers live in houseboats, scattered for miles and miles along the river banks. They make good wages. In connection with the business of shell digging is that of pearl hunting or fishing. When the mussel is raised from the bed of the river it is placed in a tank of hot water, which causes the shell to open, thus facilitating the removal of the "meat." Searchers are often rewarded by finding pearls of great value.

White River, a beautiful stream and a great freight regulator of this section, flows by the city, and is navigable the year round for about 400 miles. Steamboats ply this river the year round. Lines of towboats operate continually on this magnificent waterway, bringing factory material from the forests along its banks to the various factories and mills located here.

The timber supply that Clarendon has to draw from is immense. The bottoms of White, Cache, Red, Current and other streams tributary to White are covered with a practically inexhaustible supply of red gum, oak, persimmon, hackberry, elm and other timber indigenous to this latitude.

This little city of 3500 inhabitants is quite a manufacturing point. Its citizens are enterprising and thriving. They have put their shoulders to the wheel to make it a city of 10,000, and all indications point to a successful culmination of their efforts. There are now located here several manufacturing enterprises, among the most important being a shoe-last and shuttle-block factory, oar factory, plow beam and felloe factory, slack-barrel factory, stave factories and sawmills. A half dozen slack and tight-barrel factories located at Clarendon could secure enough timber in the tributary territory to keep them in continual operation for 30 years or more.

Clarendon has a very fine high-school building, thoroughly modern in all its equipments. This building was erected at a cost of \$30,000. Plans are under way for a sewerage system to cost \$50,000. It has electric-light plant, ice plant, telephone exchange. The sidewalks and street crossings will stand favorable comparison with any in the State.

The health is good; the climate delightful; good churches of all the leading Protestant denominations, regularly filled with ministers who stand high in their calling. With all the advantages that this city has, it must in the near future become one of the leading cities of Southeast Arkansas.

**KISSIMMEE AND CAPITAL.****A Union Urged for Florida Development.***Editor Manufacturers' Record:*

Having noted in the columns of the **MANUFACTURERS' RECORD** your offer to assist in the upbuilding of any town, city or county in the South by printing statements concerning them, I submit the following, and ask that you publish it for the enlightenment of those not familiar with the opportunities and natural advantages of this section.

Kissimmee City is near the center of the State of Florida, is at the head of navigation on Kissimmee River and its chain of broad and beautiful lakes, which are well supplied with fish and water fowl, and whose adjoining country is plentifully supplied with game of all descriptions to be found in the State. United States statistics show Kissimmee's death rate to be less than three to the thousand.

Our school system is unsurpassed. Our churches, of which there are five, are well attended by a pious people. Our winters are warm, sometimes passing entirely without a vestige of frost. Our summers are cool and pleasant, with always a good breeze blowing direct from the Atlantic Ocean or the Gulf of Mexico across our extensive prairies and lakes, where thousands of cattle, sheep and hogs get an abundance of food and water from nature's own storehouse year in and year out, to the entire satisfaction and enrichment of their owners.

Our soil is as productive as any to be found in this garden of the nation, from three to four and sometimes five crops being raised on the same ground in a year, as it is never too hot or too cold to have a profitable crop growing, and our farmers, fruit-growers and truck-raisers are among those who get the most fabulous prices for their products, owing to the natural advantages in location.

While we are located, as before stated, on navigable water to the Gulf of Mexico, we are also on the main line of the Atlantic Coast Line Railway, between Jacksonville and Tampa, with two branch lines leading out of our town, and this is one of the finest openings in the South for a railroad of 75 miles or more to be built, opening up one of the finest sections of country in the United States for farming, fruit-growing, stock-raising and trucking, with the best of facilities then to market such products at fancy prices, with an open field for naval stores and timber products and manufacturing enterprises and large fishing industry.

Then we are not troubled with insects, and, taken altogether, we believe we have found and do live in a veritable paradise, where only capital is needed to develop further the marvelous resources which nature has so abundantly poured out.

Kissimmee has at present a population of over 2000 people, who make as good friends and neighbors as can be found anywhere. Wooden structures are fast giving way to the more substantial brick and concrete here. Kissimmee has a Board of Trade with a large membership, whose secretary will be pleased to give any information, personally or by correspondence, to anyone desiring it concerning this veritable garden spot of the nation.

R. L. ROBERTS.

Kissimmee, Fla.

**Harbison-Walker Birmingham Plant**

The Harbison-Walker Refractories Co., general offices in the Farmers' Bank Building, Pittsburg, Pa., has decided to build its proposed plant, previously referred to by the **MANUFACTURERS' RECORD**, at Birmingham, Ala. Plans and specifications will provide for the construction of reinforced-concrete buildings and the in-

stallation of machinery for a daily production of 40,000 fire-bricks, the plant to cost about \$250,000. Nearly all supplies have been purchased, and construction will be begun before January 1. A. N. Spencer is the company's technical engineer; offices at Pittsburg.

**PLACING THRIFTY WORKERS.****Immigration Work for Missouri, Kansas & Texas Railway.**

[Special Cor. Manufacturers' Record.]  
Dallas, Texas, December 3.

The industrial department of the Missouri, Kansas & Texas Railway system contemplates many improvements during the coming new year. Mr. T. L. Peeler, industrial agent of this system, said to the representative of the **MANUFACTURERS' RECORD**:

"We have located 200 new factories over our railway and its branches during the past year, such as canneries, woodworking, cement, brick and glass plants, cotton mills, flour mills, grain elevators, iron plants, machine shops, ice and cold-storage plants, overall factories, implement factories, laundries, box and cigar factories and several medicine factories. The Missouri, Kansas & Texas Railway has 3072 miles of road, including its branches. We figure approximately an investment on these 200 new industries of from \$10,000,000 to \$12,000,000, employing 7421 people.

"One thousand acres of vacant lands have been purchased by homeseekers from the North and East, as well as from foreign countries, who are now engaged largely in agricultural and horticultural pursuits. Large bodies of land have been cut up into small tracts for farms. Through the efforts of the railroads, the United States Government and the press of the country, in which the **MANUFACTURERS' RECORD** has played a most important part, the newcomer to Texas has been induced to a great extent to take up diversified farming, which has proven to be worth millions of dollars to the State."

In the office of Industrial Agent Peeler, 726 Linz Building, is a splendid exhibit, conveniently arranged, of minerals, oils, clays, agricultural and horticultural products, as well as systematized and plainly-marked samples of articles manufactured along the line of the Missouri, Kansas & Texas Railway, which is kept to advertise the various products along the line.

One of the most potent levers in connection with the industrial department of this road and its work throughout the State is the well-organized propaganda as inaugurated by Mr. Peeler in his direct and helpful connection daily with the different trade organizations along his line—keeping in close touch with the secretaries of the different trade organizations, so there may be a concentrated and intelligent effort in the promotion of all industries and manufactures. ALEXANDER HELPER.

**Building Up the South.**

[Southern Field.]

That the territory traversed by the Southern Railway and the Mobile & Ohio Railroad is making rapid strides in the development of its manifold natural resources, in the establishment of new industries and in the enlargement of factories already in operation, as well as in the steady advancement and the continued growth of the cities and towns, is fully evidenced by the data presented by the land and industrial department in its annual report for the fiscal year ending June 30, 1908. The simple statement of these facts and figures is proof conclusive of the substantial progress made and of the wide diversity of the manufactured products furnished to the commerce not alone of the United States, but of the world, by the industries of the Southeast.

During the year there were completed and put in operation 594 new industries, having a combined capital of \$32,219,450. Additions were made to 136 manufactories already in operation at a cost of \$12,589,580. There were also 64 plants in process of construction, capitalized at \$2,787,500. In addition, the cities and towns expended for general improvements and in permanent investments, such as street betterments, light plants, water-works, sewerage systems, street railways, hotels, business houses, residences, churches, schools and banks, the sum of \$79,656,855, this being \$21,225,971 more than the amount expended for the same purposes the previous year.

The total amount invested in industrial enterprises was \$47,596,530, and the grand total of investments in industries and in the general city and town improvements aggregated \$127,253,385.

A closer analysis of this report discloses that of the total amount invested in new industries, the textile mills are represented by \$4,421,000, the lumber mills by \$2,901,900, stone, mineral and coal plants by \$2,288,500, iron products by \$1,599,500, woodworking plants by \$1,563,500, cotton-seed-oil mills by \$763,700, clayworking plants by \$701,950, furniture factories by \$545,300, fertilizer plants by \$403,000, and miscellaneous manufactories by \$17,031,100.

There are several features in this report that are worthy of particular notice. During the fiscal year 40 textile plants were established, and the total amount invested exceeded that of the previous year by \$337,000, emphasizing the important fact that the territory tributary to the Southern Railway and the Mobile & Ohio Railroad possesses all the climatic and other essential requirements for successful and profitable cotton manufacturing. In the list of financial institutions 113 banks appear, these having a capital of \$6,650,000, which is \$47,000 in excess of the total for the previous year. In the cities and towns new churches and schools were built at a cost of \$5,471,000, a larger outlay than in 1907 by \$1,609,762. The construction of hotels, business houses and residences represented in the aggregate an expenditure of \$48,747,628, or \$14,334,266 more than the previous year.

**Industrial Chattanooga.**

W. E. Ragsdale, president of the Tennessee Refining Co. of Chattanooga, in a letter to the **MANUFACTURERS' RECORD** telling of his return two years ago to his native State in full realization of the possibilities of the South, says that he located right at the doors of Chattanooga one of the largest deposits of white silex in the United States, and has developed this fine property. He adds:

"We have also sold the entire output of the refined goods for five years in advance. Chattanooga is a coming industrial center of the South, and the mineral wealth of this section is yet untouched. We have a modern plant, equipped with electricity, and we make the finest grade of goods. The great 56,000-horse-power plant will be in operation by July next, and will bring 100 new factories to add to the 300 or more plants now in operation in this city. There is a plan now on foot to build the famous Lookout Inn out of white blocks we made from our silex. It looks like Italian marble, and is fireproof and waterproof."

**Roebling Memorial.**

The proceedings of the ceremonies incident upon the unveiling of a monument to John A. Roebling at Trenton, N. J., together with press comments, have been published in attractive book form by the John A. Roebling's Sons Company, and

are being distributed among its friends. The influence of the life and work of John A. Roebling were so strikingly brought out in the several addresses made, and the popular contributions on the part of the citizens of Trenton were so spontaneous as to indicate the esteem in which he was held by his fellow-citizens, that it is fitting that a history of them should be preserved in book form. Anyone reading this volume cannot help but have a clearer insight into those things which make for industrial freedom, which is the foundation of the great development of this country in all lines of endeavor.

**To Develop 25,000 Horse-Power.**

Messrs. D. G. Ziegler & Co., engineers of the Suwanee River Railway & Power Co., Jacksonville, Fla., are inviting estimates for the construction of the company's proposed water-power-electric plant on the Suwanee River, three miles from White Spring, Fla. The construction will include cement reinforcement, timbers, gate, roofing, etc., for dam, canal and power-house, and the machinery will include turbines, generators, transformers, etc. It is planned to begin construction about February 15. The company was mentioned in October as to be organized with a capital stock of \$3,000,000; about 25,000 horse-power to be developed and transmitted by electricity.

**Electric and Cement Plant Proposed.**

Col. Fred H. Stith of Lexington, N. C., plans the organization of a corporation to build a water-power-electric plant on the Potomac River in Jefferson county, West Virginia. He is now having surveys made by an engineer, and expects to develop for transmission a minimum of 1000 horse-power; about \$300,000 to be expended for the development, plant and transmission lines. It is also proposed to arrange for the establishment of a Portland cement plant.

**Wants Southern Agents.**

The Metal Hardening Solution Co., Granite Building, Rochester, N. Y., wants agents throughout the South, and solicits prompt correspondence in reference to appointments.

**For Sewerage Engineers.**

J. F. Jacobs, care of Clinton Business League, Clinton, Texas, wants to correspond with engineers relative to surveys and estimates for construction of a sewerage system.

A. H. Ford of Birmingham, according to a press report from Mobile, has been elected president of the Alabama Light and Traction Association, which has completed its organization in that city. J. H. Wilson of Mobile is vice-president, and the executive committee is composed of R. J. Chambers of Montgomery, J. B. McClary of Sheffield, W. R. Hall of New Decatur, T. K. Jackson of Mobile and H. L. Rand of Anniston, Ala.

W. W. Walling, president of the Business Men's Club, San Augustine, Texas, writes the **MANUFACTURERS' RECORD** that San Augustine is "one of the liveliest towns in East Texas. There are seven brick buildings under construction, and we are to have an electric-light plant, to be installed by Mr. Nance. We want a man to put in an ice plant, a cotton compress, a cannery and a water system. There is also room for other industries."

The Commercial Club of Hartselle, Ala., Mr. D. W. Day, president, and Mr. J. A. West, secretary, is circulating a booklet giving full information about the opportunities for homeseekers and investors in and near that place.



## LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

### November Building Operations.

Building operations were fairly active throughout the South and Southwest during November, and in several of the important cities an increase is noted over the value of operations for the preceding month. In Norfolk the aggregate cost of buildings for which permits were issued was estimated at \$98,950, of which amount about \$47,000 was for dwellings. The value of buildings for which permits were issued in Richmond during the 11 months ended November 30 was \$3,055,861. Eighty-nine permits were issued in Birmingham, representing a value of \$601,180, which is an increase over the valuation for November of last year of \$454,772. Total permits for the 11 months of this year represent a value of \$2,306,438, as compared with a total of \$1,928,972 for the same period last year. In Savannah permits were issued for 40 structures, a decrease of two as compared with the number issued during October, but the buildings for which permits were secured in November are generally of a larger and more expensive character. Operations are very active in Jacksonville, and at the end of October the building records of the city indicated that 8067 new buildings had been erected since the big fire of 1901. At present there is a number of important structures being erected, including the W. A. Bisbee 10-story office building, Atlantic National Bank building, Utica Investment Co.'s building and others. In Tampa permits were issued for structures estimated to cost \$63,584.10. Permits were issued in Chattanooga during November to the number of 155, representing a valuation of \$69,890, while the cost of buildings for which permits were secured in Knoxville is estimated at \$29,250. A total of 614 permits was issued in St. Louis, representing an aggregate cost to erect of \$1,366,511, as compared with \$789,186 for November, 1907. Operations in Houston represent a value of \$817,740; Dallas, \$222,055; San Antonio, \$188,255, and Galveston, \$15,300. Exact figures are not available for Oklahoma City, but structures of every class which have been erected there during the past 11 months will approximate a valuation of \$2,000,000, while in Pine Bluff, Ark., figures for the same period indicate a valuation of \$408,000. The estimated value of Baltimore's building operations during November is \$421,218.

### Memphis Lumber Market.

[Special Cor. Manufacturers' Record.]  
Memphis, Tenn., December 5.

The lumber trade in the central South is showing a constant improvement the last 30 days. There is expected to be a slight lull during the approaching holidays, but the expectation is for a good winter business thereafter. Holders of stock are firm in their prices. The demand for oak, white and red, plain and quartered, is very satisfactory at this time. The lower grades are in scarcely as good demand as the better grades. Ash and cypress business has picked up. Cottonwood is firm, with no large stocks on hand. First and second red clear gum are in good demand. The pine business represented here and at points south is in very healthy condition now, with the builders calling for large quotas. The trade in boxes, shooks and egg cases is good. Export lumber business is picking up slowly.

The wet season is now on in the Memphis territory. This will retard hauling somewhat, but it put out the forest fires, and was generally much appreciated. With

the early tides of winter some fine logs will be brought into the Memphis market, and they are needed now by the sawmills. The receipts by rail have not been as heavy as usual this year.

With the improvement in the demand for lumber many of the Memphis mills are increasing their cut now. The C. D. Bridges Lumber Co. has about completed its plant at Hurlburt, Ark. The Brasfield-Thompson Lumber Co. has resumed its plant at Biscoe, Ark. The J. W. Thompson Lumber Co. has prepared to start up its cypress mill at Berclair, Miss. The Wright-Bachman Lumber Co. of Portland, Ark., has resumed its large mill there. C. L. Willey of Chicago has been at Memphis the last few days to start up his veneer mill at this place.

### To Develop Cypress Timber.

A report from New Orleans states that the Southern Sawmill Co., 602 Maison Blanche Building, has purchased 3000 acres of cypress timber lands in Avoyelles parish, Louisiana, and will organize the Avoyelles Cypress Co. to develop the property. It is stated that a plant will be erected either at Bunkie or Evergreen, to consist of one eight-foot band sawmill of 50,000 feet daily capacity, lath and shingle mills. A logging railroad will be constructed, and later a small planer will be installed. It is understood that Henry W. Taylor and Oscar S. Haworth, both of Bunkie, are interested in the new company, and that Mr. Taylor will be manager of the plant. Officers of the Southern Sawmill Co. include E. B. Williams, president; A. H. Williams, vice-president, and E. E. Sykes, secretary and treasurer.

### An Inquiry for Lumber.

The Carolina Bagging Co., Henderson, N. C., wants lowest cash prices f. o. b. cars Henderson on lumber, as follows: Fifteen pieces, 10x14, 22, rough, 3850 feet; 30 pieces, 10x14, 23, rough, 8050 feet; 30 pieces, 8x14, 25, D. three sides, 7000 feet; 15 pieces, 8x14, 22, D. three sides, 3075 feet; 30 pieces, 6x8, 11, wedge shape, 1320 feet; 30 pieces, 9x9, 16, D. three sides, 7000 feet; 15 pieces, 8x14, 22, D. three sides, grooved for 3/4 foot, 32,266 feet splines; 180 pieces, 4x8, 20, D. three sides, 9600 feet; 600 pieces, 3x8, 22, D. three sides, 26,400 feet; 200 pieces, 3x8, 20, D. three sides, 8000 feet; 30 pieces, 6x12, 22, rough, 3960 feet; total, 106,761 feet; 12,000 feet 3/4x3 1/2 face No. 2 flooring; 32,000 linear feet splines for 3/4x1 1/4 groove.

### Will Remove Plant.

The United Lumber Co. of Quitman, La., J. R. Swanson, vice-president, is reported as having closed negotiations with the city of Ruston, La., whereby the company will remove its plant to that city and erect it on a more extensive scale. The company, it is said, owns about 30,000,000 feet of pine timber located between Ruston and Vernon, and will construct a railroad to facilitate its development. It is intended to secure a charter and construct a standard-gauge railroad south from Ruston through Lincoln and Jackson parishes via Vernon, and probably extend it to connect with the Iron Mountain Railroad or to Clark's spur, which is now being constructed from Clark's, La., to a point near Weston.

### New Sawmill and Railroad.

A dispatch from Seminary, Miss., states that the Kola Lumber Co., Mulford Parker, president, has about completed its new saw and planing mill to replace the one burned several months ago, and will resume operations about December 15 with a daily capacity of 75,000 feet of lumber. In this connection it is reported that Mr.

Parker, who is also the president of the Ellisville (Miss.) Lumber Co., is having a railroad surveyed from Ellisville to Kola, which will be used for timber, passenger and freight traffic. It is expected to have the line ready for operation within 60 days, after which it will be extended to Shubuta and Natchez.

### Deal for Timber and Mills.

It is announced that the Palmetto (Texas) Lumber Co., A. C. Ford, Fort Worth, president, has purchased the mill and timber properties of the Columbia Lumber Co. of Oakhurst, Texas. The plant is located at the terminus of the Trinity Valley Railroad, and is equipped with circular saws of 75,000 feet daily capacity, steam drykilns, planing mill, sheds, tramroads, etc. The deal also includes about 20,000 acres of timber land, which is estimated to cut 125,000,000 feet of timber.

### Florida's National Forest.

The Ocala National Forest, in Marion county, Florida, just created, is the first to be established east of the Mississippi. It has an area of 201,480 acres, covering a plateau between the St. Johns and Ochlawaha rivers, and at no point higher than 150 feet above the sea level. Within it are sand pine, some long-leaf pine, bald cypress, cabbage palmetto, tupelo gum, water oak, ash, elm, magnolia, hickory and maple.

### Will Add New Equipment.

It is announced that the Dalton-Wake-man Lumber Co. of Gibsland, La., has increased its capital stock \$100,000 for the purpose of installing new equipment for more extensive operations. The new machinery to be purchased, it is said, will cost approximately \$90,000.

### Buys 7,000,000 Feet of Timber.

The Progress Lumber Co. of Hathorn, Miss., according to a dispatch from Hattiesburg, has closed negotiations for the purchase of 7,000,000 feet of standing pine timber in Marion and Lawrence counties.

### Wants Shuttle Blocks.

J. Freeman Williams, manager of the Woodstock Hardwood & Spool Manufacturing Co., Charleston, S. C., is in the market for several carloads of dogwood and persimmon shuttle blocks.

### For Attention of Engineers.

J. F. Jacobs, chairman of special committee on sewerage, Clinton, S. C., wants to correspond with engineer relative to survey and estimates for sewerage system.

### Lumber Notes.

Arantz Bros. of Decatur, Ala., have put a large band sawmill in operation at Alexandria, La.

It is announced that the Alabama Sawmill Co. has removed its main offices from Marbury, Ala., to Hattiesburg, Miss.

At a meeting of Texas and Louisiana naval stores operators at Beaumont last week it was decided to limit the production of turpentine to 500 crops, 10,000 cups to the crop, for the coming year.

### Continental Coal Co.

Articles of incorporation have been asked for the Continental Coal Co. of Chattanooga, whose purpose it is to develop coal mines near Rim, Ky. The company will be capitalized at \$300,000, and intends to consolidate three large mines which it has secured in the district referred to. Among the incorporators are Erle Martin and Edwin F. Davis of Tullahoma, Tenn.; C. M. Preston and John E. Patton of Chattanooga; W. H. Hartford and associates.

## MINING

### West Virginia Mining Institute.

At a meeting in Charleston last week of the West Virginia Mining Institute many of the largest coal companies in the State were represented. President J. B. Hansford of Morgantown called the meeting to order, and in his address referred to the dangers of mining, declaring that it is not sufficient alone for the management to be careful, but necessary for every member of the underground force to be on the alert for danger. Among important papers read were those of Neil Robinson, on "A Suggestion for the Automatic Isolation of Certain Mine Areas from Contact with the After Gases Following an Explosion;" W. B. Spellmire of Pittsburg, on "The Use of Electricity in Coal Mining," and Joseph Virgin, on "The Origin of Coal Mine Explosions." A feature of the meeting was a trip of inspection up the Kanawha River, which was tendered by the Charleston Chamber of Commerce. During the trip members of the institute discussed several important questions in which coal operators are interested. The meeting adjourned to meet next June at a place to be determined by the executive committee.

### Will Develop Gypsum Deposits.

The MANUFACTURERS' RECORD is informed that the Oklahoma City Gypsum Co., which was recently incorporated at Oklahoma City with a capital stock of \$100,000, will develop gypsum and gypsite deposits in Blaine county, Oklahoma. The property to be developed consists of 480 acres, and is estimated to contain about 500,000 tons. It is located on the main line of the Northern branch of the Chicago, Rock Island & Pacific Railroad, and is about 60 miles west of Oklahoma City. It is the intention of the company to erect a plant for producing all gypsum products and having a capacity of not less than 100,000 tons per day. Mr. Frank W. Fowler of Blue Rapids, Kan., will superintend its operation. In addition to Mr. Fowler, other incorporators of the company are B. F. Burwell, A. E. Briggs and Henry M. Scales, all of Oklahoma City.

### To Develop North Carolina Mica.

The English Mica Co., which was incorporated last week with a capital stock of \$125,000, has acquired a long-time lease on mica mines in North Carolina, and intends acquiring other properties for development. It will soon begin the construction of two mills, has already begun the development of a water-power to operate the mills, and will be able to supply cut mica within 60 days. Within six months the company will be prepared to supply large quantities of ground mica of all classes and of high grade. This company's executive offices are at 347 Pine street, Williamsport, Pa. Its officers are R. R. Dent, president; Dr. W. J. Rouse, vice-president; Walter M. Yeager, secretary; D. A. Fessler, treasurer.

### \$50,000 for Improvements.

The Star Cahaba Coal Co., about eight miles from Bessemer, Ala., is reported as intending to make improvements to its mining plant during the coming year at a cost of about \$50,000. Among the betterments contemplated it is stated that two new washers will be installed and a new mine opened. The property is located on the line of the Atlanta, Birmingham & Atlantic Railroad, and a shaft for the proposed mine has already been sunk to a depth of 100 feet.

The Pennsylvania State College has published as a bulletin of its department of chemistry an elaborate study by Dr. Geo. Gilbert Pond, professor of chemistry, of calcium-carbide and acetylene.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### DALLAS UNION STATION.

#### Extensive Plans Under Consideration to Accommodate Several Railroads.

President W. C. Connor of the Dallas Terminal Railway & Union Depot Co. of Dallas, Texas, is reported as saying that the proposed union depot is assured, as all the railroads interested in the plans are working together with one end in view. A conference was held recently at Chicago, at which everything was harmonious for the plan. Mr. Connor is further quoted as saying that the greatest problem to be solved is the choice of a location which will afford room for a union station sufficient for the needs of the city for many years. The proposed depot, including the train sheds and the terminal trackage, will cost at least \$1,500,000, and probably as much as \$2,250,000. The companies have in view several locations, but are not disposed at present to make any announcement concerning them.

The lines interested in the union station project are the Santa Fe, the Rock Island, the St. Louis Southwestern, the Colorado & Southern, the Missouri, Kansas & Texas and the Trinity & Brazos Valley railroads.

These companies are also contemplating the erection of freight terminals in connection with the union depot proposition. This will considerably increase the amount to be expended, and the cost of the freight terminal may also run into large figures, as it is not yet settled whether one big freight station will be constructed or whether each company will have its own depot. Work upon the passenger terminal is expected to begin within six months.

The only lines entering the city not interested in the proposed station are the Texas & Pacific, the Texas & New Orleans and the Houston & Texas Central railroads, but it is thought possible that one of these may come into the plan.

#### New Equipment, Rails, Etc.

The Seaboard Air Line is in the market for new equipment which will cost nearly \$1,000,000, including 15 10-wheel locomotives, 500 ventilated box cars, 200 50-ton phosphate cars, 50 ballast cars and 15 passenger, express and baggage cars.

The Virginian Railway, according to a dispatch from Norfolk, has disposed of \$3,750,000 of equipment notes to provide for the purchase of 40 locomotives, 25 passenger cars, 2075 freight cars and 1500 steel coal cars. This includes the 25 locomotives recently ordered from the Richmond branch of the American Locomotive Co. Bids are said to be in hand for that part of the equipment which is not yet ordered.

The Greenville & Knoxville Railroad has purchased from the Georgia Car Co. five flat cars, five box cars and 10 gondola cars.

The United States Steel Corporation is reported to have ordered the purchase of 60 locomotives. Thirty-four are for the use of subsidiary companies, and of these latter the Baldwin Works will build 14 and the American Locomotive Co. 20.

The Pennsylvania Railroad Co. will, it is reported, purchase 160,000 tons of steel rails for 1909, of which 100,000 tons will be for the lines east of Pittsburg and 60,000 tons for the lines west of that city. Part of the contract will be filled at the works of the Maryland Steel Co., Sparrows Point, Md.

The Washington, Arlington & Falls Church Electric Railway is reported to have received six double-truck semi-con-

vertible cars from the Brill plant at Philadelphia.

The Houston Electric Co., Houston, Texas, is reported in the market for cars.

The Augusta Southern Railroad, one of the Southern Railway's lines, is reported in the market for two locomotives.

The Rock Island is reported to have placed an order with the Union Switch & Signal Co. to equip 500 miles of its own lines and 750 miles on the St. Louis & San Francisco Railroad with electric block signals.

The Norfolk & Western Railway is reported to have ordered the construction of 300 coal cars at its shops at Roanoke, Va.

The San Antonio & Aransas Pass Railway is reported to have awarded to the American Car & Foundry Co. its order for 500 ventilated box cars and 200 stock cars. The former, according to the contract, approved by the Railroad Commission, will cost about \$750 each and the latter about \$675 each.

#### Railroad and Land Development.

A Dutch syndicate is contemplating a large investment in land, the building of a railroad and the establishment of an important and extensive deep-water port on the Gulf coast, according to a report from San Antonio, Texas. D. P. Weidemann, representing the syndicate, and Von Bloemen Waanders, both of The Hague, Holland, have visited San Antonio and the country adjacent to that city in the interest of the proposed enterprises. Mr. Waanders is a civil engineer, and Mr. Weidemann is said to head the syndicate. The San Antonio *Express* relates that the plans under consideration include the establishment of a colony of Dutch farmers to engage in fruit and vegetable culture, besides the growing of tulips and other flowers. The land in view lies in Bexar, Atascosa, Live Oak, Nueces, Refugio, Calhoun and Lavaca counties. The railroad is the line projected and partially built by the Port O'Connor, Rio Grande & Northern Railroad Co., formerly called the Texas Railway Co., and designed to run from Port O'Connor (Alligator Head) to Victoria, Smithville, Cuero, Yoakum, San Antonio and other points. This company has an old grade from Port O'Connor, on Matagorda Bay, to Victoria, and, it is reported, has graded about 40 more miles. Those interested in it are Michael Goggan of San Antonio, W. I. Allen of Victoria, W. S. Hipp, a contractor of Houston, and others. The visitors are to report to the syndicate, and upon their statements depends the expected financing of the contemplated plans.

#### North & South Carolina Line.

The North & South Carolina Railroad is the name of the new line which is being built by W. R. Bonsal & Co. of Hamlet, N. C., railroad contractors. A report from Hamlet says that Mr. Bonsal recently leased from the Seaboard Air Line a branch 10 miles long running south from Hamlet to Gibson, N. C., which latter place is at the border of South Carolina. From Gibson he has recently built seven and one-half miles of new line to McColl, S. C., and is now building seven and one-half miles more to Clio, S. C. The line is to be further extended, it is reported, from Clio to Dillon, S. C., about 20 miles. There are rumors that the road will be finally built to Charleston, S. C., but Mr. Bonsal is quoted as denying this.

It is said that the first seven and one-half miles of line from Gibson to McColl were completed inside of 60 days, and the new tracks from Gibson as far as Clio are expected to soon be in operation. This will make the line from Hamlet to Clio 25 miles long, and then work may be sus-

pended until next spring. The road runs through a fine farming country.

#### Santa Fe Improvements at Temple.

The Gulf, Colorado & Santa Fe Railway, according to a report from Galveston, Texas, where the headquarters of the company are situated, will begin construction within 30 days on its improvements at Temple, Texas, requiring an expenditure of about \$425,000, and perhaps more. The plans and contracts have been prepared, and the engineers are now completing the surveys. These improvements will include a new passenger station to cost \$75,000, new freight yards about \$200,000, a storehouse \$28,500; besides land for all these, new tracks, interlocking signals, viaducts, sewers, fences, culverts, etc., which will run the cost up to the above figures.

The passenger station will be of brick, two stories high, and measuring 40x196 feet. In the freight yards 15½ miles of tracks are to be laid, the storehouse will be of brick, 50x200 feet, and an additional main track will cost \$30,000. Sufficient property has been secured to have room for doubling the facilities when it may be necessary to do so. It is expected that the new buildings will be completed in three or four months.

At the same time with the foregoing work the improvement of the Railroad Y. M. C. A. Building will be started. This will cost about \$12,500.

The Santa Fe has also just completed a three-story brick hospital at Temple at a cost of \$90,000, and it is to be formally opened on December 18.

#### A Union Depot for New Orleans.

The Texas & Pacific Railway Co. and the New Orleans city authorities, who control the New Orleans Belt Railroad, are conferring upon plans which are expected to result in the erection of a railway station in that city by the Texas & Pacific Railway Co. near Canal street and the river. It is contemplated to build a union depot which will finally become the property of the city of New Orleans after a series of payments to the Texas & Pacific.

L. S. Thorne, vice-president and general manager of the Texas & Pacific Railway, is reported as saying that the proposed new station will be a fine modern structure costing from \$250,000 to \$300,000. It appears to be expected that an agreement will soon be reached and the construction of a depot begun. When the new building is finally paid for by the city it will become its property, and will be under the charge of the Public Belt Railroad, which is a city institution.

#### Frisco to Do New Work.

The St. Louis & San Francisco Railroad has, according to a report from New York, arranged for financing its needs to the extent of \$40,000,000, which will include money for improvements and extensions. Exactly how much will be paid for the new work is not stated, but some suggestions concerning it may be found in the statement that about \$30,000,000 of obligations mature this year and next year, and are provided for in the new loan. Whether the remaining \$10,000,000 is all to be used for new work is not stated.

#### Railroad Notes.

H. F. Staley has been appointed master mechanic of the Carolina, Clinchfield & Ohio Railway, with office at Johnson City, Tenn., succeeding H. L. Hobbs, transferred.

A dispatch from Greensboro, N. C., says that the receivers' sale of the Mt. Airy & Eastern Railway has been postponed from December 7 to January 4. E. M. Wiley of New York and J. A. Mills of Raleigh are the receivers.

The Rock Island system, it is reported from El Reno, Okla., is doing considerable work in that State in the way of ballasting its lines. This includes ballasting between Waurika and Chickasha, Chickasha and El Reno, Waurika and Anadarko, Hobart and Chickasha and El Reno and Enid.

The New Orleans Railway & Light Co. is reported to have sold \$2,400,000 of 4½ per cent. bonds to the Hibernia Bank & Trust Co., the Canal-Louisiana Bank & Trust Co. and the Whitney-Central National Bank, the proceeds to be used to liquidate a loan, which practically amounts to funding the floating debt.

The MANUFACTURERS' RECORD is informed that the Central of Georgia Railway Co. has not yet determined the amount of the expenditure for enlarging the shops at Macon, Ga., but it is settled that the company will proceed with constructing a new roundhouse. The shops at Macon are new, yet more room is required.

According to a report from Daytona, Fla., work will begin within a month on the proposed electric trackless trolley line between Seabreeze and Daytona Beach. S. H. Gove, general manager of the American Trackless Trolley Co., is quoted as making this statement; capital \$200,000. Franchise reported secured in Seabreeze, and one is pending in the Council at Daytona.

#### Facts About Polk County.

A special industrial edition of the Tampa (Fla.) *Tribune*, relating to the resources of Polk county, has recently been issued, and many copies besides the regular circulation have been distributed. The publication consists of 54 pages, is comprehensively illustrated, and presents in an interesting manner a review of the progress and prosperity of Polk county. In an editorial reference attention is directed to the fact that the county contains 1,250,000 acres of land, with 7000 in orange groves. In its phosphate mines it has a source of almost unlimited wealth, while its pebble deposits are very promising. It has 1,100,000 acres of round pine timber lands, which produce 3000 feet to the acre and furnish a broad field for naval-stores operators. There are at present 32 turpentine plants in operation in the county, whose gross receipts amount to about \$500,000 annually, although the development of this industry may be regarded as only beginning. This edition of the *Tribune* is the second of the special South Florida county reviews, the first one having been devoted to Hernando county. De Soto county will be the next one reviewed, and special representatives of the paper are already preparing data for the publication.

#### The Atlanta Power Co.

The Atlanta Power Co. of Atlanta, Ga., has applied for incorporation, the capital stock being \$25,000, with privilege of increasing to \$1,000,000. Messrs. E. A. Neely, Alexander King and George Campbell are the incorporators, and they propose building a water-power-electric plant on the Chattahoochee River.

The proposed company for Summerville, Ga., lately mentioned, will probably have a capital stock of \$250,000 and build a plant of 10,000 spindles for manufacturing 30s to 40s yarns and complement of looms for weaving 38½-inch print cloth. Z. T. McKinney of Greenville, S. C., can give information.

M. B. Lewis of Birmingham, Ala., is planning to form a company to build the proposed cotton mill, mentioned last week, at Lineville. He is secretary-treasurer of the Marble City Mills, manufacturing hosiery yarns at Birmingham.



**TEXTILES****The Turner Mills Co.**

From authoritative sources the MANUFACTURERS' RECORD has received the following report on the progress of the Turner Mills Co. in building its plant at East Monbo, N. C.:

"For the past 12 months the company has been engaged in constructing the dam, water-house and mill foundations. The dam is about 1300 feet long, and reaches clear across Catawba River. It is used by the Turner Mills Co. and the Monbo Manufacturing Co., the latter being on the Catawba and the former on the Iredell side of said river. The dam is of concrete, and the cost to both companies is about \$25,000.

"The wheelhouse is concrete, reinforced, and steel structure, and is now practically complete, with the wheels installed.

"The mill foundations are of concrete, built above the high-water mark, and are practically completed.

"The reservoir, now being constructed, is situated on a high hill, about 400 feet from the factory proper, and will hold about 200,000 gallons of water.

"A brick store and 15 or more operatives' cottages have been built.

"The textile machinery will be placed about the middle of the summer of 1909, and be in full operation by September of next year. The development is 500 horse-power for the Turner plant, and at the other end of the dam 150 to 200 horse-power for the Monbo plant.

"The new mill's daily capacity will be about 2000 pounds of fine hosiery and warp yarns.

"The factory building proper is 80x300 feet, and will be equipped with about 7600 spindles and complementary machinery. The whole plant completed will cost about \$200,000. C. H. Lester of Monbo is the architect."

W. D. Turner of Statesville, N. C., is president of the Turner Mills Co.

**The Taylorsville Cotton Mills.**

The Taylorsville (N. C.) Cotton Mills will be ready for operation about March 1. This company was among the new enterprises reported by the MANUFACTURERS' RECORD some months ago, and the buildings are now completed, including a 77x287-foot mill. Preparations are being made to install the machinery—5200 spindles and necessary preparatory apparatus for manufacturing 26s to 30s hosiery yarns, all to be double-carded to ensure high quality. Contract for equipment was awarded to the Saco & Pettet Machine Works of Newton Upper Falls, Mass. Steam power will drive the plant, but it was located at Taylorsville with the idea of obtaining electric power from the Southern Power Co. (of Charlotte, N. C.), which will develop Lookout Shoals, 10 miles from Taylorsville, in the future. The Taylorsville Cotton Mills' officers are: President, W. B. Matthews of Taylorsville; vice-president, Fred H. White of Charlotte, N. C.; secretary-treasurer, A. C. Payne of Taylorsville; general manager, Henry M. Wilson of Raleigh, N. C.

**The J. W. Watts Mill.**

J. W. Watts, treasurer of the Watts Manufacturing Co., Lileadown, N. C., proposed the organization of a company capitalized at probably \$70,000 to build a cotton mill at Stony Point, N. C. He contemplates the installation of 4000 spindles and accompanying apparatus, to be driven by electricity generated from water-power and transmitted two miles; from 125 to 150 horse-power required. Proposals for constructing buildings will be probably invited about January 1, and offers on machinery will be considered now. The plant

is to have a daily capacity of about 1500 pounds of No. 20 yarns. Mr. Watts was mentioned last week as reported to build this mill.

**Building the Shelby Addition.**

The Shelby Cotton Mill, Shelby, N. C., is progressing with the erection of its addition, detailed some weeks ago by the MANUFACTURERS' RECORD. The enlargement is two stories high, 75x90 feet, and will be equipped with 6500 producing spindles, 3000 twisting spindles, etc., operated by electricity and manufacturing Nos. 20 to 30 two-ply yarns. The Galivan Building Co., Greenville, S. C., has the building contract.

**Cromer Bros., Silk Manufacturers.**

Cromer Bros. is the firm name under which Chas. W. and Victor M. Cromer of Hagerstown, Md., are building the silk mill mentioned last week. Their building, now in course of erection, will be 36x120 feet, one and two stories high, costing \$5000. It will be equipped with electric power and machinery for manufacturing silk ribbons. All the machinery has been contracted for.

**Another Mill for Taylorsville.**

O. L. Hollar of Taylorsville, N. C., and Fred H. White of Charlotte, N. C., propose organizing company with capital stock of \$100,000 to build a cotton mill at Taylorsville.

**For Ticking Manufacturers.**

The Wharton Mattress Factory, Wharton, Texas, wants to correspond with manufacturers of ticking.

**Textile Notes.**

O. R. Cox of Thomasville, N. C., will incorporate a company to build a textile mill at Asheboro, N. C.

H. K. Edgerton of Lebanon, Tenn., proposes the organization of a company with capital stock of \$60,000 to build a woolen mill.

C. E. Hallman of Montmorenci, S. C., will install additional machinery in the near future. He manufactures half-hose in the gray.

The Thomaston (Ga.) Cotton Mills will, it is reported, add 8000 spindles. This company is now operating 15,000 ring spindles and 288 looms on the production of duck and sheeting.

George W. Watts of Durham, N. C., has purchased the Odell Mills at Concord, N. C., the purchase price being \$174,000. It is understood that Mr. Watts will organize a company to operate the plants.

Robert L. Steele, president of the Steele's Mills, manufacturing print cloth, Rockingham, N. C., contemplates establishing at Sanford, N. C., the bleachery lately reported. He has made no definite decision.

The Trion Manufacturing Co., Trion, Ga., will install 292 Northrop looms in place of common looms heretofore operated. It has awarded contract for the looms to the Draper Company of Hopedale, Mass.

The recent report that the Laurens (S. C.) Cotton Mills will install additional looms arose from the fact that the company is proceeding with its decision of some months ago to replace some plain looms with looms built by the Draper Company of Hopedale, Mass.

The Camperdown Mills of Greenville, S. C., will install new equipment for dyeing, long-chain system and indigo, replacing raw-stock system heretofore used. All contracts have been awarded. The company will continue to manufacture standard staple 27-inch gingham and fancy gingham.

**FOREIGN LETTERS**

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

**Woodworking Machinery for France.**

Herbert Harris, 405 Coventry road, Birmingham, England, writes the MANUFACTURERS' RECORD:

"I have received an inquiry from Paris for machines destined for new works being erected outside of that city. The firm is an excellent one, established in half-dozen countries of Europe, and with plenty of money. I know the buyer personally, and I think your American friends will be able to beat the English firms whom I have asked to quote for the same machinery. Machinery wanted as follows: Band saw with 28-inch wheels; circular saw to take 30-inch saw, rise and fall table; planing, surfacing and thicknessing machine to take 20 inches; radial arm-boring machine to bore up to one inch, for wood; sliding, surfacing and screw-cutting lathe, nine-inch centers, with loose gap; drilling machine with back gear, to drill up to one and one-half inches; grinding machine, with two emery wheels 16x2 inches; fast and loose pulleys, suction gas plant with 30 brake horse-power engines."

**Time and Labor-Saving Machines.**

E. J. Crozier, care of Magnolia Metal Co., 113 Bank street, New York, writes the MANUFACTURERS' RECORD:

"New arrangements rendered necessary by the new Britain Patent Act brought Mr. Crozier to this country. After conference with firms for whom he has acted for the last 16 years as sole agent in Great Britain, arrangements have been made whereby these specialities will be manufactured so as to comply with the new act. His firm is chiefly interested in selling time and labor-saving machines for factories, steamships and such like, other than domestic machines, and he would be glad to hear from any American firms desiring representation in Great Britain. If the agencies were not such as Mr. Crozier's firm could handle, his 35 years' experience would undoubtedly enable him to help find suitable agents. Other manufacturers might desire to sell their patents in Great Britain, or to arrange for manufacture in Great Britain."

**Trade With Japan.**

Sajiro Tateish, president Tateish Trading Co., Tokio, Japan:

"Through your kind advertisement we have already received an offer from a concern dealing with filings and second-hand iron and steel scrap. To foster trade between Japan and America there must be mutual understanding of each other's manufacturing systems, transportation facilities and business welfares. For this a permanent establishment of a sample hall in Japan, where American samples may be exhibited for the benefit of native manufacturers and dealers, should be the first step to consider. England and Australia are undertaking this, though at present simply through representatives. Canada is striving toward the same end. The American consulate lacks commercial attaches, while England and Germany are provided with these proper means for extending their spheres of trade. We hope American business men will consider these points."

**Norway Wants Southern Products.**

Harald Thogers, Thor Olsens Gd. 8, Christiania, Norway, writes the MANUFACTURERS' RECORD: "I take the liberty

of asking you to put me in connection with or name addresses of first-class exporters of cottonseed meal and oil, oleo oils and stock, Texas cotton and rice, syrup and fruits."

**Brass Borings and Wire Scrap.**

Arthur Percival Collins, Central House, New street, Birmingham, England, writes the MANUFACTURERS' RECORD:

"I shall be much obliged to you if you could supply me with a list of American screw makers. I want to buy the borings, or, as you name them, chips, which they make in the manufacture of brass screws. I am also open to hear from all makers of wire cloth, or, as we call it, gauze. The makers would have a quantity of brass wire that is only fit for remelting, and their customers would have a quantity of scrap cuttings, but it must be clear and balled ready for pot, or, as you say, 'cabbaged.'"

**Pieces for Pianos.**

Manuel R. Flores, general sales and purchasing agent, San Luis Potosi, Mexico, writes the MANUFACTURERS' RECORD:

"The products which I am at this present time exploiting are pianos. Various manufacturers have sent me their catalogues of machinery for working wood, etc., but my object is not to buy machinery to make pianos, but to buy the separate pieces of the pianos in order to set them up (build) in this country, making the sounding box and iron bed ourselves. If you can get us information along this line from some of your advertisers I shall be under obligations."

**For Iron and Steel Plants.**

Ditta R. A. Canale, via XX Settembre, 33, Genoa, Italy, writes the MANUFACTURERS' RECORD:

"I am now working with the large Italian steel and iron works, whom I have for many years supplied with pig-iron, coal, metals; also I work in lead, zinc, tin, etc. If you will be so good as to place me in correspondence with good houses in these lines, business may very well result. I also want to know what can be done with America in the way of rails for the railroads here. I would beg you to see that the correspondence is made in French, that being the usual business language here."

**Grain for Norway.**

Loken & Co., Christiania, Norway, writes the MANUFACTURERS' RECORD:

"We are anxious to establish connection with a first-class exporter of maize and grain, to be shipped especially from Galveston, which has a direct steamer line to Norwegian ports. We trust you will do your utmost in this regard, as we are able to do quite a large business."

**Shovels for Spain.**

Herbert Harris, 405 Coventry road, Birmingham, England, writes the MANUFACTURERS' RECORD:

"I have this morning an inquiry from Spain for spades and shovels. My customer wants to buy several hundred coal-shovels, but they must be cheap enough to compete with shovels from England."

**Nickel Smelters, Rosin and Cotton.**

The Swedish Chamber of Commerce of New York, Produce Exchange Annex, New York city, writes the MANUFACTURERS' RECORD:

"We have received inquiries from correspondents desirous of being placed in communication with nickel smelters in the United States; also with large firms exporting rosin and cotton."

## MECHANICAL

### The Heyworth-Newman Scraper Excavator.

The use of scraper buckets handled by derrick cars is a comparatively recent method of excavation which has been

adopted with success on various classes of work. In several of these machines the bucket has a swinging bail, to which the hauling cable is attached. With this arrangement, however, there is sometimes difficulty in regulating the depth of cut, and the bucket may ride over hard material instead of cutting into it.



HEYWORTH-NEWMAN SCRAPER EXCAVATOR.

A special form of bucket, which is de-

signed to overcome this difficulty, has been invented. This is illustrated herewith, the dimensions given being those for a bucket of two and one-half yards capacity. In this bucket there is a rigid attachment of the bucket to the bail, thus ensuring a positive depth of cut. The attachment is adjustable, so that the depth of cut can be varied to suit the character of the mate-

rial. The bail is attached to pairs of side bars pivoted to the lower end of the mouth. To the upper end of the bucket are attached two side bars, which are attached also to the bail, and thus maintain a fixed relation of the bucket to the bail. These side bars have one-and-five-sixteenths-inch holes for the one-and-one-quarter-inch pins,

by which they are attached to the bucket and the bail. The dotted lines show the limit of adjustment. For excavating hard material, steel teeth may be fitted to the cutting edge, rivet holes being provided for this purpose.

The bucket is the invention of W. J. Newman, and the excavating machine equipped with this bucket is being offered (under the name of the Heyworth-New-



HEYWORTH-NEWMAN DRAG SCOOP BUCKET.

man excavator) by James O. Heyworth, general contractor, Harvester Building, Chicago.

A second illustration is a view of the Heyworth-Newman excavator in use on the Evanston channel of the Chicago Drainage Canal. The machine is a large revolving derrick car, of steel construction, traveling on lines of wooden rollers laid

under the sills. The turntable is 25 feet diameter, and carries a frame on which are mounted the 85-foot box-lattice boom, the 35-foot steel mast and the operating machinery. The mast is guyed from both ends of the frame. A topping lift provides for varying the reach and height of the boom. The maximum width of cut is 75 feet.

The bucket is of three and one-third cubic yards capacity. It has two operating lines: (1) The hauling line, attached to the point of the bail and led direct to the engine drum; (2) the hoisting line, led over the boom to a block which is attached to the bucket by a chain sling. One end of the hoist line is carried from a block over a sheave to the rear of the bucket to dump it. The view shows the loaded bucket in position for dumping, which is effected by hauling in the dump line so as to tilt or invert the bucket.

The machine is owned and operated by Mr. Heyworth, who has a contract for two miles of the channel, with about 880,000 cubic yards of excavation. It has been working on the east side of the channel

poses, and herewith is a view of one of the types. Referring to these buckets, their manufacturer, J. S. Barron, 127 Franklin street, New York, says:

"Points of construction of the XXX buckets which make them indestructible: Hoops cannot come off; ears cannot pull out; bottom cannot drop out; staves cannot shrink or be driven in or out.

"A countersunk hoop on the inside top rim riveted through the staves and outer top hoop makes it impossible for the staves to drop out or become loose, consequently the pail cannot fall apart even when dried out. Each hoop passes under the strap which encircles the pail, thereby making it impossible for hoops to drop off, as the strap is riveted through the staves above, below or through each hoop. The double bottom makes it impossible to force the bottom out, and it is doubly reinforced by the strap which encircles the body.

"The XXX No. 1 bucket is for foundry, concrete, asphalt and contractors' use. Its dimensions are 12¾ inches outside top,



A J. S. BARRON BUCKET.

since September 1, and another will soon be installed on the west side. The present machine is said to average 1800 cubic yards per day, and has to swing through 180 degrees to the waste bank. The machine is operated by two men, an engine-man and a fireman; these work in three shifts. There are also three laborers (working two shifts); these men attend to grading the path of the machine and moving the rollers upon which it travels.

The material is mainly a stiff clay; it is soft in places, while in others it is practically hardpan. The average depth of cut is 28 feet. The channel has a bottom width of 30 feet, with side slopes of 3 on 5. The material is being dumped in a spoil bank along the line of the work, a 25-foot berm being left along the top of the cut.

Mr. Heyworth is prepared to send to inquirers any further desired information regarding the capabilities of the equipment.

### The J. S. Barron Buckets.

The Barron buckets are manufactured for all kinds of industrial and other pur-

10½ inches outside height; capacity, 14 quarts; made of selected seasoned oak, treated with special waterproof process which adds to life of the wood.

"The XXX No. 2 is for extra heavy foundry, cement, asphalt and contractors' use. Its dimensions are 13½ inches outside top, 11¼ inches outside height; capacity, 17 quarts; double bottom, extra heavy staves, countersunk hoop at inner top edge and finished same as XXX No. 1, but with or without strap; ears are below top of pail.

"The XXX No. 3 is a sewer pail for use in sewer departments. Its dimensions are 13½ inches outside top, 13½ inches outside height; capacity, 20 quarts; adapted for any heavy work; heavily strapped same as XXX No. 1, having all of the same improved features, including countersunk hoop at inner top edge.

"The XXX No. 4 is a factory bucket. Its dimensions are 12¾ inches outside top, 11¼ inches outside height; capacity, 15 quarts; made specially for silk mills, flour mills and factories which require a light bucket of large capacity, but one which



will give good service; made of selected clear white cedar, treated with special waterproof preparation, which adds life to

tent man to look over the place, ask questions and do a little figuring. If, in his opinion, the machine could not be utilized

risk, and if the man who gives it a trial does not want it the manufacturer takes it back.

The platform revolves on the base, and is ball-bearing. It swings easily around, no matter how heavy the load may be.

The base is made of malleable iron and mounted on three wheels, the front wheel working on a pivot with a handle attached for moving and guiding the machine.

The hoisting platform is equipped with four large rollers within the channels or uprights, thereby reducing the friction to a minimum. The platform is also equipped with five iron rollers, which revolve in sockets, four of which are reversible, the front one being stationary.

When the aisle is so narrow that it will not permit of the platform being revolved on its base, the machine is wheeled into the aisle its narrow way, which is three feet, and the rollers are adjusted. The four movable rollers being in line about one-quarter of an inch higher than the front roller, the box does not touch the front roller, and when it has been elevated to its required height it is pushed off into its place without revolving the base.

For ordinary aisles four feet wide the rollers are adjusted all the same way, and when the required height is reached the machine is revolved about 90 degrees and the platform swings around like a crane to the point desired to deposit the package. The package is then pushed off the rollers into its place.

The removal of the center rollers admits a barrel, allowing for its swell and holding it in place. A wooden platform is furnished when bales are to be handled.

This elevator is manufactured by the New York Portable Elevator Co., 450 Princeton avenue, Jersey City, N. J.

#### Reinforced Concrete Buildings at Jacksonville, Fla.

The city of Jacksonville, Fla., has attracted attention in the reinforced concrete industry because of an unusual warehouse completed by the Turner Construction Co., 11 Broadway, New York, for the J. G. Christopher Company. Last June the MANUFACTURERS' RECORD de-



THE NEW YORK REVOLVING PORTABLE ELEVATOR.

the bucket; has galvanized hoops, each hoop fastened on so it cannot fall off; as this bucket is made especially light, only a single bottom is used."

#### Revolving Portable Elevator.

An accompanying illustration presents a view of the New York revolving portable elevator, intended for use in warehouses, factories or any other building where boxes, barrels, bales, cases and other packages are handled. This elevator moves objects weighing up to 1200 pounds to any required height up to 10 feet. It may be wheeled anywhere about a building, in any aisle four feet wide, and loaded or unloaded from front, back or either side. The equipment stands upon three bearings. The apparatus for raising or lowering the platform is ingenious, though simple. The operator cannot be hurt by the revolving crank as the load comes down, for the reason that it is compulsory to take the crank off in order to lower the load. The brake is easy to operate, and works with absolute certainty.

The revolving feature is also simple, and it is the easiest matter imaginable to revolve the platform so that the loading or unloading may be done at any point of the compass.

The machine is furnished with the upright channels jointed, so that it can be "broken" to run through an ordinary doorway or taken on freight elevator to other floors when desired.

When a man sees the possibilities of this elevator and thinks it might be useful to him the manufacturer sends a compe-

to advantage and profit he says so; if, in his opinion, it could be so used the manufacturer puts the machine in at its own

The machine is built entirely of steel and iron, the only part of wood being the crank handle.

scribed a warehouse 210x95 feet, five stories high, under construction for the same company. Mr. Christopher became so con-



FIG. 1.—BIG ROOM IN REINFORCED-CONCRETE BUILDING.

vinced of the economy, stability and durability of reinforced concrete that, although situated in the heart of the timber section, he decided to use it in preference to other materials. Before the completion of building No. 1 the Christopher Company had awarded an additional contract to the Turner Construction Co. for another rein-

might be no undue stresses set up in the arches.

Fig. 4 shows the forms for these arches in place. Some idea of the magnitude of this building is obtained when a study is made of the long lines of column forms at the left and the complicated work at the right in connection with the arches. Elabo-

wooden tower in which a Ransome bucket operated, was conveyed to the floor where it was to be deposited, and after being dumped from the Ransome bucket into a temporary gate-box was wheeled across the floor to whatever beam or column it was intended for in a two-wheel concrete cart. Power was furnished by a 35-horse-power

lot, on the Hudson River, New York, and ship by schooner to Jacksonville. Seven schooners, with an average capacity of 1000 yards, have sailed from New York with broken stone for the Christopher buildings.

The trim used was obtained very largely locally. Hardware was supplied by the



FIG. 2.—METHOD OF TAKING UP ARCH THRUST.

forced concrete warehouse, 105x105 feet, two stories high.

When building No. 2 was nearly finished the Christopher Company gave a third contract to the Turner Company, and work was begun on building No. 3, 157 feet 6 inches by 110 feet, four stories and basement in height, of reinforced concrete throughout. This building will have retail stores on the ground floor, offices and lofts above. It will be equipped with vaults, elevators, electric lights and all modern facilities. It is due to building No. 2 that the Christopher buildings have become widely known. It has one room 60x105 feet without a post or strut in it. For this building there was demanded a room for storing long-length pipe without difficulty; another requirement was that the room be designed so that teams could drive in along the floor to any part of it and load or unload pipe. Provision was also made for railroad cars to run the long length of the room in a depressed track pit. To meet such unusual needs the construction company adopted an arch form of construction. Accompanying illustration (Fig. 1) shows an interior view of this great room after completion. The arches span 60 feet from wall to wall, and are spaced 16 feet center to center. In addition to carrying their own dead-weight, they are required to support the second floor, which is designed for a 300-pound live load per square foot, and to carry also the second-story columns of this building, which is ultimately to be five stories high. The loads thus imposed on these concrete arches are greatly in excess of what is ordinarily met with in bridge design. It was out of the question to build big abutments and haunches outside of the building line to take up the thrust at the springing line of the arch, so it was necessary to lay below the level on a proposed track pit heavy steel tie bars. These show in Fig. 2, which is a view taken from about the center of one of the arch spans looking parallel to the arch and down on top and along the four tie bars. These bars, which take up the thrust of the arches, connect with specially cast skewbacks set at the spring line of the arch (Fig. 3), which gives a very good idea of the massive character of this construction. It was necessary in carrying out this work to put the tie bars into initial tension, so that when the concrete set with the resulting shrinkage there

rate bracing and a careful investigation of soil conditions was necessary before concreting could be undertaken. The reinforcement in the arches consisted of cold-twisted steel bars fabricated on the job so as to take up temperature and shearing stresses as well as any contingent forces which might come into play. The forms were mostly of Florida pine for the thin boards, such as the seven-eighths-inch



FIG. 3.—MASSIVE CHARACTER OF ARCH CONSTRUCTION.

electric motor; in addition there was installed a sawmill (circular saw and boring machines) operated by a 15-horse-power motor.

While plans for the first building were being drawn investigation was made of the materials available around Jacksonville. Sand was found of fair quality when pumped from the bed of St. Johns River; there was no difficulty about lum-

Christopher Company. On building No. 1 the windows are of wire glass set in hollow metal frames supplied by a Louisville (Ky.) dealer. Owing to less exposure hazards it was not deemed necessary to use fireproof windows on buildings Nos. 2 and 3. As a result the windows in these buildings are of plain glass set in wooden frames made in Jacksonville. The floor finish of buildings Nos. 1 and 2 was

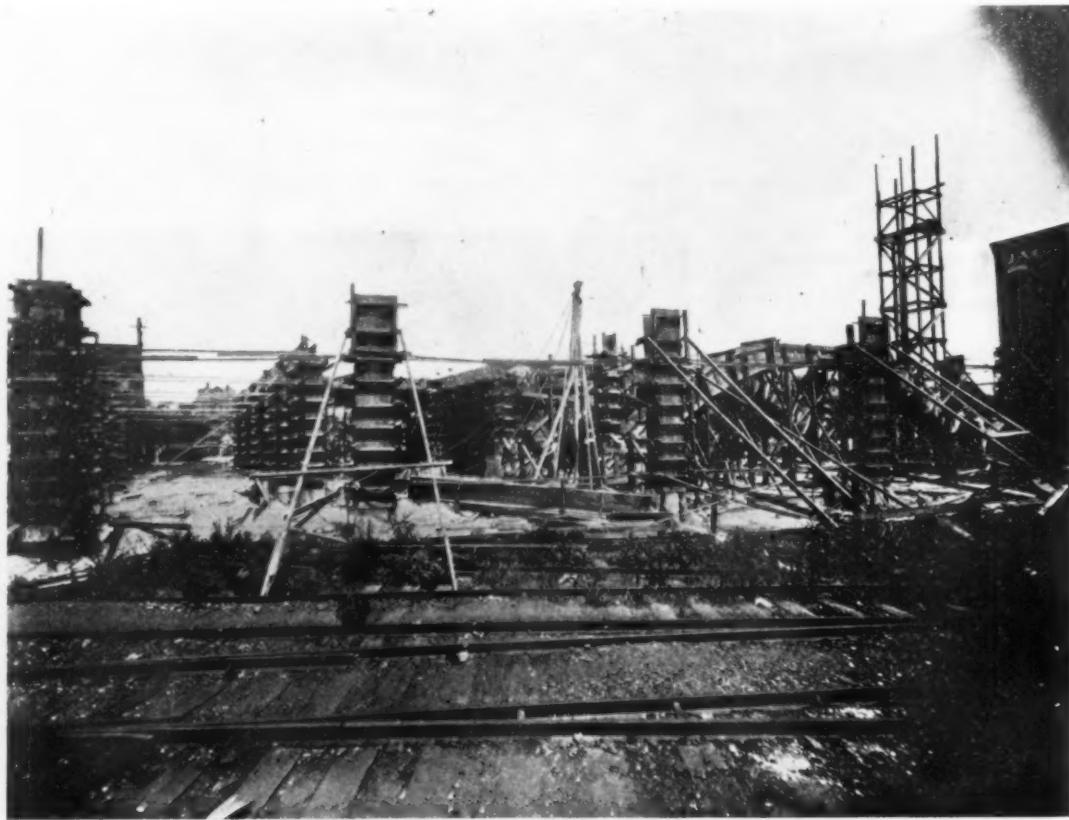


FIG. 4.—FORMS FOR MASSIVE ARCHES IN POSITION.

sheeting for the floor panels and the wall forms, and yellow pine for the two-inch planks and the 4x4-inch pieces used chiefly in connection with the columns and for bracing under the floors. The concrete was mixed by a mixer made by the Ransome Concrete Machinery Co., 11 Broadway, New York, and by means of a hoist, made by the Lidgerwood Manufacturing Co., 96 Liberty street, New York, and a

ber or steel, the latter being shipped from Pittsburg mills. As to stone there was much concern. Florida possesses little or no rock suitable for concrete. The Georgia quarries quoted prices f. o. b. Jacksonville for three-quarter-inch broken stone nearly 30 per cent. in excess of that obtainable for Hudson River trap rock. It was therefore decided to buy all the stone from the Clinton Point Stone Co., Came-

laid, after the reinforced concrete floors had been concreted, by means of an acid joint. This method of granolithic finish has proved satisfactory. On building No. 3 it is proposed, because of greater economy, to lay finish at the same time the floors are concreted. The buildings' interiors are cold-water painted, so as to give a uniform quality of concrete and provide a stronger light. The most noticeable fea-



ture of the finish is the exterior finish given to the concrete. This consists of a standard white-lead paint in which there has been mixed fine white sand. This mixture is applied with a brush and produces a beautiful sand finish. It was first tried on the Phelps Publishing Co. building in Springfield, Mass.

The South probably offers a better field for reinforced concrete construction than any other part of the United States. The setting of concrete goes on best under medium high temperatures; it is difficult to finish concrete surfaces in the full blaze of a hot sun. For mass work, however, and for building work where the forms protect the concrete from the direct rays of the sun, the high temperatures prevailing in the South during the entire year are very nearly ideal for quick and economical construction. There is no occasion for anxiety as to whether the concrete in the beams and columns has set over night, as is often the case in the North during fall and winter work in that region. The forms and bracing can be removed within six or seven days after concreting, with consequent saving in lumber and in the time which must elapse before the building can be occupied. The finish work can be applied late in the afternoon, or means can be provided for protecting the floors or the sidewalks from the sun. The superintendent has reported no trouble whatever from blistering, and has stated he never saw concrete go in under better conditions than in this job.

Building No. 1 is completed up to the third floor level. It is the ultimate intention of Mr. Christopher to carry this structure up five stories. To provide for this the present roof consists of a temporary cinder fill on top of a regular reinforced concrete floor, which was designed for a live load of 200 pounds per square foot. The exterior of both buildings on the street fronts consists of a veneer of white brick. Aside from this, both buildings are of reinforced concrete throughout—footings, columns, floors, walls, partitions and stairs. The general method of design is that employed by the contractor in about 200 other buildings, and follows closely the original Ransome system.

When building No. 1 was begun all the skilled labor necessary was sent to Jacksonville from New York. The carpenter, concrete, steel and labor foremen were carefully selected, and each one of them took with him a nucleus of his old gang. This skilled labor remained in the South until the summer weather came on. Then it became impossible to hold the men in the hot sun, and it was necessary to develop local talent. Fortunately, this condition had been foreseen, and a number of local carpenters had been trained to handle concrete forms and a sufficient number of negro laborers had been used in connection with the removing of the forms, the bending, handling and placing of the steel, and more particularly with the mixing and placing of the concrete to make building No. 2 a comparatively simple matter under the new conditions. Negro labor has proved very satisfactory, and has given unusually low unit costs on all the work. In some instances the figures obtained for bending or handling steel and for placing the concrete have been phenomenally low. The resulting saving has been placed to the credit of the owner, and not to the contractor. This is due to the character of the agreement between the two.

#### A Fiber Hand Portable.

It is a matter of common knowledge among electrical men that the use of bare lamps or wire guards is a source of considerable danger to both workman and ma-

chinery because of the liability to short-circuits or grounds. Many a man has lost his life and many a motor or generator has been destroyed by contact with live wires. The Benjamin Electric Manufacturing Co. of 42 West Jackson Boulevard, Chicago, has placed upon the market a fiber hand portable which prevents such accidents. The value of this device is



A FIBER HAND PORTABLE.

such that those familiar with electrical machinery and the risk attendant upon the working around it will require no further comment to convince them of its merits. There are no metallic parts, and the construction is such that the distribution of light is as free as that of any ordinary guard. A view of the device is presented herewith.

#### Roadways for Modern Requirements.

Perhaps never before throughout the country has as much interest been taken in the question of securing good roads as at present. Moreover, interest in this important subject is steadily increasing and expanding, this being evidenced by the vast amount of money that is being voted or spent. This is especially true of the South, where during the first six months of this year an aggregate of \$30,000,000 worth of good road or pavement work was in some process of being undertaken. The improvement of roads has for many years in the past followed along the same lines without much change in materials, macadam being the most generally used. But with the coming of the automobile and under modern traffic conditions it has become recognized from practical experience in all parts of this country and foreign countries that the older materials will not withstand the new methods of traffic, and that some different materials and system of building roads must be adopted.

In line with this progressive work a number of new methods have been introduced to meet present conditions, among them being one known as the "Imperial" road.

A section of road under this system was constructed in Kansas City nearly five years ago, and it is stated that although it has been subject to constant traffic for all of that time, not one cent has been spent on it for repairs or maintenance. Other important streets and boulevards in the same city have also been built according to this system, and the United States Government has adopted it for the construction of an artillery road between Fort Leavenworth and Leavenworth. It is being used for roads in Gloucester and Morris counties, New Jersey; for streets in Harison, N. J.; for roadways in the Morris Park residential section of New York city, and numerous other places.

The Imperial system of road construction is a simple one, and consists of thoroughly plowing and harrowing the existing roadway, whether it be earth, gravel, sand, loam or macadam. After this a mixture of hot asphaltic binder is introduced

into the disintegrated road under a pressure of about 40 pounds to the square inch from a sprinkling wagon. The mixture is then thoroughly incorporated with the earth by means of special machinery, and after the mass has been well treated to a depth of about five inches specially-designed tampers weighing about three tons are employed. These tampers, on account

idea of merely plowing up the soil of a road or tearing up the worn-out macadam of an old street, loosening and harrowing it up and then forcing hot liquid asphalt or asphalt mixed with crude petroleum having an asphalt base into this loose dirt, harrowing it in thoroughly, mixing the whole together, then putting in plows and turning this all under, thoroughly pulveriz-



LAYING IMPERIAL ROAD IN KANSAS CITY.

of their construction (being made of a plurality of toothed discs journaled upon an axle), sink into the asphaltic-laden mixture to the full depth of the teeth, five or six inches. The weight of this machinery drives the teeth to the bottom of the roadway and thoroughly compacts the asphaltic-laden mixture. The tampers are driven back and forth over the roadway, and compact the mass from the bottom up

ing the new dirt and forcing in more hot asphaltum oil, harrowing this in and then mixing and kneading the whole with a rolling tamper, seemed to me, as an old road builder, to be nothing more than child's play, but the results obtained satisfy me that the Imperial patented process is a real pavement."

Other features noted by Mr. Meeker from his examination were that this road



MACHINERY USED IN MAKING IMPERIAL ROADS.

until it is so firm that the teeth ride upon the surface. When this part of the work is completed a 10-ton steam roller is used and the roadway is well ironed out. It is claimed this gives a road which is dustless, noiseless, mudless and waterproof, and that can be built under ordinary circumstances for about the first price of good macadam construction. R. A. Meeker, State Supervisor of Public Roads

could be torn up and replaced without affecting it; it improved with age, as shown by examination made of pavements laid; it is dustless and noiseless, and not slippery.

Three accompanying views are of interest in this connection.

This new system is controlled by the Imperial Road Co., Times Building, New York. Wm. K. Archbold is president;



SHOWING DUSTLESS CHARACTER OF IMPERIAL ROAD.

of New Jersey, made a special trip to Kansas City to personally investigate the qualities of this roadway, and in speaking of the system of construction said:

"The method of construction of this pavement is so simple that the engineer is not inclined at first to regard the pavement seriously. When my attention was first called to it it seemed to me to be only a makeshift for a pavement. The

Wm. B. Spencer, vice-president; Harold B. Weaver, secretary, and John Bogart, chief engineer.

Mr. Harvie Jordan of Atlanta has been chosen president, and Mr. Lee Richardson of Vicksburg, Miss., treasurer, of the National Cotton Association, an outcome of the Memphis conference on the cotton situation in the South.

# Construction Department

## TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS' RECORD seems to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

### ADDRESS FULLY

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

### WRITE DIRECT

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

### BRIDGES, CULVERTS, VIADUCTS

Alexandria, La.—Alexandria Electric Street Railway Co. will construct 200-foot trestle across Bayou Robert.

Batesville, Ark.—Independence county will construct following steel highway viaducts and bridges, with trestle approaches and abutments, complete: Swift Slough, Black River township, one four-panel steel-framed viaduct, 80 feet long, 12 feet wide; Burrow Slough, Christian township, one three-panel steel-frame viaduct, 60 feet long, 12 feet wide; Big Island Slough, Magness township, one through Pratt truss steel highway bridge, 110 feet long, 12 feet wide; Ten-Mile Creek, Fairview township, steel bridge, 75 feet long, 12 feet wide. Bids to be opened December 19; Cul L. Pearce, County Judge. (See "Viaduct Construction" in "Machinery, etc., Wanted.")

Birmingham, Ala.—St. Louis & San Francisco Railroad, C. R. Gray, St. Louis, Mo., second vice-president, contemplates viaduct construction in Birmingham; estimated expenditure \$400,000.

Boston, Texas.—Bowie county, Precinct No. 1, voted \$25,000 of bonds for bridge and road construction. Address County Commissioners. (Noted in October.)

Houston, Texas.—H. L. Shaw, engineer, submitted plans and specifications for concrete viaduct from Travis street to Montgomery avenue to bridge committee of Business League; structure proposed of concrete; 1300 feet long; 52 feet wide, with 16½-foot driveway in center, street-car track, with protecting curbing, on each side of driveway and railed-in sidewalk on each side of tracks; will cross Buffalo Bayou at height of 55 feet from water level, White Oak Bayou at height of 50 feet and street and railroad tracks at height of 22 feet; cost about \$150,000; T. C. Tarver, City Engineer.

Malvern, Ark.—Hot Springs county will erect bridge at Green Ferry recently mentioned; steel structure; about 400 feet long; cost from \$10,000 to \$15,000; plans and specifications not adopted or engineer secured;

date for bids not fixed; Andrew I. Roland, County Judge.

Martinsville, Va.—Contract will be let December 17 for construction of iron bridge across Smith River at Satterfield Ford site; J. R. Gregory, City Engineer. (See "Machinery Wanted.")

Memphis, Tenn.—City opened bids December 10 for construction of reinforced concrete bridge across Monroe avenue; Heiskell Weatherford, City Engineer. (See "Machinery Wanted.")

Norfolk, Va.—Board of Control recommended to City Council appropriation of \$12,000 to provide for construction of reinforced-concrete arched bridge over north branch of Smith's Creek and concrete culvert for south branch on Duke street; W. T. Brooke, City Engineer.

Parkdale, Ark.—Vincent Bridge Co., New Orleans, La., has contract at \$7991 to erect bridge over Bayou Bartholomew at Parkdale.

Pawhuska, Okla.—Osage county will construct one concrete, one stone arch and seven steel bridges; bids to be opened December 8; H. J. Behning, County Surveyor.

Robert Lee, Texas.—Coke county will vote on issuance of \$35,000 of bonds for bridge and road purposes. Address County Commissioners.

Spartanburg, S. C.—Bids will be opened December 15 for building Arthur and Island Creek bridge; either wood or steel; W. Frank West, Supervisor; S. M. Bagwell, Clerk. (See "Machinery Wanted.")

Wheeling, W. Va.—Charles B. Cooke, City Engineer, has prepared plans for construction of Market-street bridge, which have been adopted by City Council. Structure as proposed will be steel-truss bridge with span 162 feet long and 66 feet wide; floor is to be supported by buckle plates, over which cement or concrete will be laid, and over this, floor proper of asphalt block, brick or whatever material Council may designate; two traction tracks will be laid on either side of bridge, with 24-foot roadway between, and sidewalk on either side, each made of concrete; bearing capacity is 71,000 pounds to linear foot; cost is estimated at \$65,000. Wheeling Traction Co. and City & Elm Grove Traction Co. bearing \$15,000 each and city \$25,000; C. C. Schmidt, Mayor.

### CANNING AND PACKING PLANTS

Charleston, W. Va.—Dunbar Canning Co. incorporated with \$10,000 capital stock by R. G. Hubbard, George S. Couch, E. A. Reid and others.

Monroe, La.—Progressive League is promoting establishment of packing plant with capital of \$25,000.

Poquoson, Va.—W. H. Hopkins is interested in organization of company to establish cannery.

Ruston, La.—C. F. Howard proposes establishment of cannery.

Tulsa, Okla.—Ernest Mehle will be manager of packing plant to be established in Tulsa; buildings to cost \$30,000 will be erected.

### CLAYWORKING PLANTS

Eldorado, Ark.—Bricks, Tile, etc.—Eldorado Brick Works incorporated with \$30,000 capital stock by J. R. Randolph, L. S. Fitzgerald and Aymer Flenniken.

Macon, Ga.—Bricks.—Central Georgia Brick Co. incorporated with \$25,000 capital stock by Jesse B. Hart, J. Freeman Hart and H. M. Farnam.

Oliver Springs, Tenn.—Brick.—Oliver Springs Coal & Clay Co., recently reported incorporated (under "Coal Mines and Coke Ovens"), will manufacture high-grade dry press brick; B. F. Ryan, president; H. B. Phillips, secretary and treasurer.

### COAL MINES AND COKE OVENS

Alabama.—C. E. Everett, 140 Dearborn St., Chicago, Ill., has purchased coal lands in Alabama.

Birmingham, Ala.—Star Cahaba Coal Co., W. G. Robinson, president, Birmingham, will expend about \$50,000 in improvements, including new washers and opening of new mine.

Harriman, Tenn.—Harriman Coal Co. increased capital stock from \$5000 to \$25,000.

Macon, Ga.—Empire Coal & Ice Co. is interested in organization of company with about \$500,000 capital stock to develop coal

mines; Mr. Glenn Toole of the Empire company is negotiating for coal-mining properties, comprising about 1500 acres, in Jellico coal district of Kentucky. It is reported Empire company will produce 1500 tons of coal daily, including expected output from Kentucky mine mentioned; main offices, Macon.

Phillippi, W. Va.—A. N. Humphrey, 239 South Highland Ave., Pittsburg, Pa., states that plans are not ready for announcement relative to operations at Phillippi. (A. N. Humphrey, Jr., recently noted to open coal mines.)

Itim, Ky.—Continental Coal Co. incorporated with \$300,000 capital stock by John E. Patton, James Bldg.; C. M. Preston, cashier Hamilton Trust and Savings Bank, and W. H. Martin, all of Chattanooga, Tenn.; Earle Martin and Edwin L. Davis, both of Tullahoma, Tenn.; company has secured, will consolidate and operate three coal mines near Itim.

Uniontown, Ky.—Ward Douglas, Cincinnati, Ohio, and associates will, it is reported, build coal tipples and docks, to cost about \$250,000, at Uniontown; J. C. Hubner, Duluth, Minn., will be contractor.

### CONCRETE AND CEMENT PLANTS

Dyersburg, Tenn.—Hall Concrete Co. will install machine for manufacturing concrete blocks. (See "Warehouses.")

Jefferson County, W. Va.—Fred H. Stith of Lexington, N. C., proposes establishment of Portland-cement plant; to operate by electric power transmitted from water-power development. (See "Electric-Light and Power Plants.")

### COTTON COMPRESSES AND GINS

Anderson, S. C.—J. C. Nally will enlarge cotton gin; two additional gins of 70 saws each will be installed, thus doubling capacity, making it 40 tons daily. (See "Flour, Feed and Meal Mills.")

Batesburg, S. C.—Planters' Storage Co., Jno. B. Torvill, president, contemplates establishment of 30-ton cottonseed-oil mill. (See "Machinery Wanted.")

Edgemont, Ark.—Globe Cooperage & Lumber Co. will establish cotton gin. (See "Woodworking Plants.")

Fayette, Miss.—Butler-Keyser Oil & Fertilizer Co. will install Munger compresses in connection with three cotton gins.

Marvel, Ark.—L. J. McKinney contemplates rebuilding larger gin for next season. (Recently reported burned.)

Tennille, Ala.—J. J. Munn & Co. contemplate rebuilding cotton gin and sawmill recently reported burned; plans not decided. (See "Machinery Wanted.")

Weason, Miss.—Burgess & Montgomery will probably rebuild cotton gin and sawmill reported destroyed by fire; loss \$2500.

### COTTONSEED-OIL MILLS

Roslyn, Va.—Columbia Cottonseed Oil & Provision Co., Metropolitan Bank Bldg., Washington, D. C., has had plans prepared by C. A. Coburn, 510 Metropolitan Bank Bldg., Washington, for factory building; five stories; 105x57 feet; reinforced concrete; slag or concrete roof; elevator; electric wiring; plumbing; Bailey-Langford Company, Colorado Bldg., Washington, reported as lowest bidder. (Mentioned in October.)

### ELECTRIC-LIGHT AND POWER PLANTS

Ashburn, Ga.—City will vote on issuance of bonds for electric-light plant, water-works and school building. Address The Mayor. (Previously mentioned.)

Americus, Ga.—City will erect power-house to furnish electricity for lighting city. Address The Mayor. (See "Water-works.")

Chillicothe, Mo.—H. I. Spence, City Clerk, will receive bids for construction of gas and electric-light plant for street and commercial lighting, with day service in Chillicothe, on basis of 15-year franchise.

Delhi, La.—City is considering construction of electric-light plant and water-works. Address The Mayor.

Elberton, Ga.—City is considering, it is reported, improvements to electric-light plant, including raising of dam and installation of larger dynamo. Address The Mayor.

Elsberry, Mo.—City awarded following con-

tracts for construction of electric-light plant: J. W. M. Palmer of Elsberry, at \$1170, for erection of power-house; Brownell Company, Dayton, Ohio, at \$3288, for steam-power plant, complete; Allis-Chalmers Company, Milwaukee, Wis., at \$2052, for electrical equipment; contract for pole-line supplies not awarded; building will be fireproof; one story; 50x80 feet; W. A. Fuller, Chemical Bldg., St. Louis, Mo., is engineer in charge. (Recently mentioned.)

Eufaula, Ala.—City Council has appointed committee to investigate cost of erecting light plant not less than 60 arc and 1000 eight-candle-power incandescent lights; power-house and boilers already installed at pumping station, two miles from city; also cost of boring artesian well, same site; building new dam and installing turbines. H. B. Dowling, superintendent of water-works and sewers.

Jefferson County, W. Va.—Fred H. Stith of Lexington, N. C., plans organization of corporation to develop water-power and build electric plant for transmitting by electricity a minimum of 1000 horse-power from property on Potomac River in Jefferson county, West Virginia; surveys now being made by engineer; about \$300,000 to be expended; also proposes establishment of Portland-cement plant.

Leesville, S. C.—Brodie Light & Power Co. incorporated with \$10,000 capital stock by Furman E. Brodie and Claudia E. Brodie, both of Leesville, and C. P. Quattlebaum, Conway, S. C.

Lynchburg, Va.—Virginia and Northern capitalists propose organization of company, probably capitalized at \$1,000,000, to build a water-power-electric plant on Staunton River 25 miles south of Lynchburg; plan includes construction of concrete dam costing \$350,000 and transmission of electricity to Lynchburg and other cities; interested parties not as yet ready to announce names, etc.

Macon, Ga.—City is considering erection of electric-light plant in Vineville. Address The Mayor.

McKinney, Texas.—City will extend electric-light system; additional arc lights will be placed; W. E. McKinnon, Dallas, Texas, is superintendent of city water-works and electric system.

Minco, Okla.—City has engaged Burns & McDonnell, Dwight Bldg., Kansas City, Mo., as engineers for electric-light plant and water-works to be constructed; has disposed of bonds to be issued, and expects to award contract within next 90 days, provided bonds are voted affirmatively in election soon to be held; J. C. Kimzey, Mayor; W. E. Showen, Clerk. (Recently mentioned.)

Montgomery, Ala.—People's Electric & Ice Co. will increase capital stock from \$50,000 to \$200,000 and increase its facilities.

Nashville, Ark.—City has contracted with J. C. Stephenson for furnishing city with electric light; plant to be installed.

Ninety-nine Islands, P. O. Blacksburg, S. C.—Southern Power Co., Charlotte, N. C., awarded contract to B. H. Hardaway, Columbus, Ga., for constructing dam and power-house at Ninety-nine Islands, seven miles from Blacksburg; cost about \$650,000; will develop 20,000 horse-power for transmission by electricity; dam to be 1100 feet long and 90 feet high, containing 170,000 cubic yards of masonry—concrete rubble; contract to be completed in 15 months. It is understood this development will increase Southern Power Co.'s available horse-power to 110,000.

Norcross, Ga.—City is having specifications prepared for electric-light plant; current to be supplied by North Georgia Electric Co.; will want bids on machinery; \$5000 bonds recently reported voted; T. E. Johnson, Mayor. (See "Machinery Wanted.")

San Augustine, Texas.—San Augustine Light & Power Co. will construct electric-light plant recently reported; president, F. K. Nance; present address, Jacksonville, Texas; will erect metal building 30x60 feet; equipment (mainly purchased) to be installed within 30 days.

Sherman, Texas.—City invites bids for erection of building in which to install electric-light machinery; Henry Zimmerman, City Secretary. (City recently mentioned as having awarded contracts for additional electrical machinery.)

Spruce Pine, N. C.—English Mica Co., executive offices at 347 Pine St., Williamsport, Pa., has begun development of water-power



property for operation of two mica mills. (See "Mining.")

St. Augustine, Fla.—City awarded contract to St. Johns Light & Power Co. for lighting city; 233 incandescent lights will be furnished.

Tenaha, Texas.—City granted franchise to Lem Hill for installation of electric-light plant.

Torrell, Texas.—City is having plans prepared for electric-light plant recently mentioned; cost \$15,000; E. R. Miller, secretary. (See "Machinery Wanted.")

White Springs, Fla.—Suwanee River Railway and Power Co. plans to begin construction about February 15 of proposed water-power electric plant on Suwanee River, three miles from White Springs; plan involved transmission of 25,000 horse-power by electricity for lighting and power purposes; estimates now invited for construction of dam, canal and power-house; also for generators, turbines, switchboards, transformers, cement reinforcement, timbers, gate, etc. Address D. G. Ziegler & Co., engineers in charge, care of Suwanee River Railway & Power Co., Jacksonville, Fla.; latter reported in October as to organize with capital stock of \$3,000,000 to build plant noted. (See "Machinery Wanted.")

## FLOUR, FEED AND MEAL MILLS

Anderson, S. C.—J. C. Nally will establish roller mill in connection with ginnery and grist mill; will erect storeroom and dwelling; will double capacity of cotton-gin, installing two additional gins of 70 saws each, making capacity 40 tons daily; roller mill will be three stories high; concrete blocks; lower story of natural stone.

Birmingham, Ala.—Wood & Crabbe Grain Co. will establish meal mill with capacity of 500 bushels; contract for machinery awarded to Nordyke-Marmon Company, Indianapolis, Ind.

Hobart, Okla.—Alfalfa Milling Co. will enlarge plant; large power corn sheller will be installed.

Macon, Ga.—Stock Feed.—National Hay, Grain & Storage Co., recently reported incorporated with \$30,000 capital stock (under "Miscellaneous Enterprises") will erect four-story brick building; will install milling and mixing machinery to manufacture stock feed; G. G. Toole, manager.

Newnan, Ga.—Meal.—D. T. Manget & Co. contemplate establishment of grist mill with capacity of 1200 bushels meal daily. (See "Machinery Wanted.")

Perryville, Mo.—Perry County Milling Co. incorporated with \$14,000 capital stock by W. R. Wilkinson, Emanuel Estel, Ludwig H. Meyer and others.

Shreveport, La.—W. G. Wadley, 1524 Fairfield Ave., contemplates erection of alfalfa hay-grinding mill of 60 or more tons daily capacity. (See "Machinery Wanted.")

## FOUNDRY AND MACHINE PLANTS

Baltimore, Md.—Stoves, etc.—A. Welskittel & Son, 200 Alliceanna St., will erect addition to plant in Highlandtown; two stories; 100x200 feet; reinforced concrete; cost about \$10,000.

Big Stone Gap, Va.—Coke-oven Doors.—American Coke-Oven Door Co. incorporated with \$25,000 capital stock; J. A. L. Minor, president; J. J. Alley, vice-president; J. W. Kelley, secretary.

Chattanooga, Tenn.—Mining Machinery, etc.—Peglar Manufacturing Co., D. C. Peglar, president, Fort and 13th Sts., will remove plant in January to one-story brick building to be erected for company at Cowart and 16th streets by Chattanooga Steam Laundry, 100 East Main St., Chattanooga; structure to have composition roof; cost \$2500; contractors, Adams & Schneider, 120 East 8th St., Chattanooga. Peglar Manufacturing Co. manufactures mining mills and mining machinery and operates general machine shop. (See "Machinery Wanted.")

Eldorado, Ark.—Farm Implements.—J. J. Hudson, secretary Eldorado Board of Trade, is promoting establishment of \$5000 farm-implement manufactory by Indianapolis (Ind.) capitalists. E. W. Trook, representative of capitalists, may be addressed care of Mr. Hudson.

Houston, Texas—Brass Foundry.—Hewitt Manufacturing Co. will erect brass foundry; 85 feet front, 150 feet extension and 16 feet high; corrugated iron and steel; fireproof.

Knoxville, Tenn.—Iron Works.—Sanford Day Iron Works, recently reported to erect new plant for increased facilities, has not yet determined on plans.

Knoxville, Tenn.—Plows.—William J. Oliver Manufacturing Co. has purchased plant of

Groundhog Plow Co., Clarksville, Tenn.; will remove it to Knoxville and operate.

New Decatur, Ala.—Farming Machinery.—Cotton Growers' Industrial Co. will establish plant in New Decatur for manufacturing cotton choppers, cultivators and other farming machinery; capacity about 20,000 machines annually, to be gradually increased; company may be addressed care of Charles Bassett, secretary of The Development Company, Decatur, Ala.

New Orleans, La.—Car Shops.—International Car Co., Maison Blanche, awarded contract to Virginia Bridge & Iron Co., Roanoke, Va., for sheds and buildings to M. & V. Garsaud, New Orleans, for substructure, corrugated sheeting, doors and windows; first building 60x100 feet, for planing mill, to be used as machine shop until permanent machine shop is completed; all buildings of steel structural work; contracts for planing-mill machinery awarded to Greenlee Bros. Co., Rockford, Ill. Other details lately mentioned. (See "Rails" in "Machinery Wanted.")

Oklmulgee, Okla.—Windmills, Implements and Gas Engines.—Oklmulgee Implement & Manufacturing Co., recently reported incorporated with \$50,000 capital stock, will establish plant to manufacture windmills, harrows, alfalfa cultivators, pulverizers and gas engines; will erect brick building 40x250 feet, to cost \$10,000; plans by W. R. Stuart, Okmulgee; will install machinery.

St. Louis, Mo.—Foundry.—Anti-Crucible Manufacturing Co. incorporated with \$50,000 capital stock by D. M. Jackson, Peter B. Gibson, C. F. Lefavor and others.

St. Louis, Mo.—Heating Apparatus, etc.—Reliance Heating & Engineering Co. incorporated with \$4000 capital stock by George H. Frank, Manuel J. Hanna, Gustav Strauss and Edmond Schaefer.

St. Louis, Mo.—Tools, Machinery, etc.—Henderson-Willis Welding & Cutting Co. incorporated with \$5000 capital stock by P. F. Willis, W. D. Henderson and Leonard Henderson.

## GAS AND OIL DEVELOPMENTS

Bartlesville, Okla.—Wiley Oil & Gas Co. incorporated with \$10,000 capital stock by W. C. Van Hoy, C. A. Wiley and M. R. Richards.

Houston, Texas.—Cross River Oil Co. incorporated with \$5000 capital stock by W. Fondrem, C. E. Barrett and Sam Streetman.

Marshall, Texas.—Edmond Keys, Paul Whaley and others are interested in organization of company to construct natural-gas pipe line from Caddo field to Marshall.

Muskogee, Okla.—Iola Oil Co. incorporated with \$10,000 capital stock by Art Moffitt, L. C. Declus, H. E. Roberts and others.

McAlester, Okla.—City will grant franchise to L. C. Featherstone & Co. to furnish McAlester with natural gas.

Pawhuska, Okla.—City plans to supply 90,000,000 feet natural gas per day for manufacturing purposes; W. H. Hawkins, engineer in charge. (Recently noted contemplating \$10,000 bond issue to purchase two gas wells.)

Rising Star, Texas.—Central Texas Oil Co. incorporated with \$15,000 capital stock by J. W. Bose, Will Anderson, B. F. Terry and others.

Shreveport, La.—Ayers Oil Co. incorporated with \$25,000 capital stock; R. S. Ayers, president; John M. Greene, vice-president; F. S. Ayers, secretary and treasurer.

Tennessee.—Beaumont Oil Co., Beaumont, Texas, has, it is reported, secured option on 7000 acres of land surrounding and including Islands in Reelfoot Lake, and will begin prospecting for oil; if oil is found in sufficient quantities, pipe line will be constructed to St. Louis, Mo.

Tulsa, Okla.—Leola Oil Co. incorporated with \$25,000 capital stock by P. D. McConnell, A. Aggas and T. F. Birmingham.

Van Buren, Ark.—A. J. Yoke, Ft. Smith, Ark., will, it is reported, apply for franchise to furnish Van Buren with natural gas.

Woodville, Texas.—American Oil & Fuel Co. incorporated with \$100,000 capital stock by D. J. Blackiston, P. Clarence Barnes, both of Cumberland, Md., and A. Hooten Blackiston, El Paso, Texas; company will operate at Woodville; main offices in Cumberland, Md.

## ICE AND COLD-STORAGE PLANTS

Hobart, Okla.—Hobart Ice & Bottling Co., recently reported incorporated with \$40,000 capital stock, purchased plants of Hobart Ice & Coal Co., Ice-Cream & Bottling Co. and Hobart Bottling Works & Ice-Cream Manufacturing Co.; also Fritsche's ice plant; no machinery needed; A. E. Fritsche, president of new company.

Montgomery, Ala.—People's Electric & Ice

Co. has increased capital stock from \$50,000 to \$200,000 to increase facilities.

Parkersburg, W. Va.—Company has been incorporated by J. G. Cochran, Parkersburg; W. W. Jamieson, Salem, W. Va.; F. O. Funk, Moundsville, W. Va., and J. W. Crandell, Marietta, W. Va., to establish ice plant; suitable building will be erected and two machines with capacity of 30 tons each will be installed for making plate ice; cost about \$30,000. (Recently mentioned.)

Rocky Mount, N. C.—Rocky Mount Ice Co. will increase output of plant to 75 tons daily; will also erect storage warehouse with capacity of 3000 tons.

Waurika, Okla.—Waurika Ice & Electric Co., M. Griffin O'Neil, Dallas, president, will construct 30-ton ice plant in connection with electric-light system; work to begin at once.

## IRON AND STEEL PLANTS

Elm Grove, W. Va.—Iron Works.—Wheeling Enamelled Iron Co. will consider an increase in capital stock from \$125,000 to \$185,000.

Kansas City, Mo.—Steel Plant.—W. C. Abbott has not arranged any details for establishing steel plant in Kansas City; can be addressed at 503 Chamber of Commerce Bldg., Chicago, Ill., and Pittsfield, Ill. (Recently mentioned.)

Wheeling, W. Va.—Iron Furnace.—Wheeling Steel & Iron Co., C. R. Hubbard, general manager, will, it is reported, soon reconstruct its Top Mill blast furnace.

## LUMBER-MANUFACTURING PLANTS

Avoyelles Parish, La.—Southern Sawmill Co., New Orleans, La., has purchased 3000 acres of timber land in Avoyelles parish and will establish lumber mill at either Evergreen or Buikie; new plant will be operated by Avoyelles Cypress Co., subsidiary of Southern Sawmill Co.; sawmill will be eight-foot band, with daily capacity of 50,000 feet; logging railroad will be constructed and small planer will be established later; company will manufacture lath and shingles on extensive scale; Henry Taylor, Buikie, La., it is reported, will be manager; offices, Suite 602 Maison Blanche Bldg., New Orleans.

Berryville, Ark.—C. L. Scott has purchased and will operate Osage sawmill; contemplates spoke factory in connection.

Birmingham, Ala.—Grant-Bauer Lumber Co., J. B. Dabney, president, 1109 Ave. E., recently reported incorporated, has installed planing-mill machinery and will make hardwood and pine finish stairways, office and store fixtures. (See "Woodworking Plants." Recent notice incorrect.)

Cadell (not a postoffice), W. Va.—Kingwood Lumber Co., Kingwood, W. Va., has purchased 400 acres of timber land on Cheat River near Cadell Station; spur track will be constructed and property developed.

Columbia, Tenn.—Riverside Lumber Co., organized by J. C. Borum, will erect warehouse and later install two or three machines for manufacture of lumber; electric motor for power.

East Lynn, W. Va.—East Lynn Lumber Co., recently reported incorporated, with J. R. Frenier, McArthur, Ohio, president, will establish plant with daily capacity of 25,000 feet of oak; band mill; cost of plant about \$10,000. (See "Machinery Wanted.")

Edgemont, Ark.—Globe Cooperage & Lumber Co. will establish sawmill with capacity of 40,000 feet of lumber daily. (See "Woodworking Plants.")

Gibbsland, La.—Dalton Lumber Co. will double capacity of plant, expending about \$90,000 for new equipment.

Gleason, Ark.—Freeman Lumber Co. recently noted to increase plant, is erecting small addition to sawmill, and will probably build small shingle mill; practically closed order for machinery; capacity two mills 160,000 shingles daily.

Hathorn, Miss.—Progress Lumber Co. has, it is reported, purchased 7,000,000 feet of standing pine timber in Marion and Lawrence counties, Mississippi, and will rebuild and overhaul mills in Hattiesburg district.

Laurel, Miss.—DeSota Naval Stores Co. will erect ironclad \$500 structure; manufacture turpentine, rosin and pine oil; no machinery needed. (Recently noted to replace burned building.)

Leonville, La.—St. Mary Hardwood Lumber Co., J. C. Blevins, president, Garden City, La., recently noted incorporated (under Franklin, La.), has acquired and will operate timber contracts and small circular mill of Frisbie & Dugas at Leonville; will cut red oak, white oak, hickory, ash and red

gum; capacity 12,000 feet daily; no further machinery needed.

Louisiana.—Friedlander & Co., Villa Platte, La., contemplates, it is reported, establishment of two sawmills, one on Bayou Cocandria and one at St. Laundry Station; latter to be 7-foot band mill, with capacity of about 35,000 feet.

Macon, Ga.—Massee & Felton Lumber Co., B. P. O'Neal, president, contemplates erection of band-saw mill near Macon to develop hardwood timber; plans not definite; construction of buildings, etc., probably not for six months, or possibly a year.

McNeil, Ark.—McNeil Lumber Co., recently reported incorporated, will establish planing mill; will erect 62x80-foot building with fire-proof roof at cost of \$1500; cost of machinery, \$10,000; J. L. Young, Jr., president; E. M. Rhodes, vice-president; G. A. Moody, secretary and treasurer.

Memphis, Tenn.—Turtle Lumber Co. incorporated with \$25,000 capital stock by F. E. Estabrook, F. W. Roedter, C. C. Day and others.

Meridian, Miss.—E. A. Spinks has purchased controlling interest in Meridian Planing & Creosoting Co.; will install new machinery and enlarge capacity.

Monticello, Miss.—Mr. McKinney, Newhebron, Miss., is interested in establishment of sawmill in Monticello with daily capacity of 300,000 feet.

Nicholasville, Ky.—Standard Lumber Co., composed of J. F. Herberger, Cincinnati, and H. H. Mecklin, Winchester, Ohio, has purchased plant of Roy Lumber Co. at Nicholasville, will enlarge same and add bending and veneer plant.

Pikeville, Ky.—Levisa Lumber Co. is preparing for extensive timber developments in Big Sandy Valley near Pikeville, where it will install several mills.

Ruston, La.—United Lumber Co., Quitman, La., will, it is reported, establish plant at Ruston; will construct standard-gauge railroad through Jackson and Lincoln parishes via Vernon.

Tennille, Ala.—J. J. Munn & Co. contemplate rebuilding burned sawmill and cotton gin; plans not made. (See "Machinery Wanted.")

Turkey Creek, La.—Crewell Lumber Co., Pawnee, La., contemplates establishment of lumber mill at Turkey Creek.

Wasfoto, Ky.—T. J. Asher Lumber Co. will establish several new mills; is constructing 20-mile lumber road from Wasfoto up Cumberland River into Harlan county, and upon completion of same, timber property will be developed.

Wesson, Miss.—Burgess & Montgomery will probably rebuild sawmill and cotton ginnery reported destroyed by fire; loss \$2500.

Whitesburg, Ky.—Benjamin Holbrook will establish additional sawmill to saw logs taken out of the Kentucky mountains.

Wilmington, N. C.—Chadborn Sash, Door & Lumber Co. will establish saw and lumber mill and drykiln plant; mill to have capacity of 20,000 feet daily kiln-dried North Carolina pine boards; will erect sawmill 30x100 feet and drykiln 18x85 feet; machinery purchased; M. W. Divine, president; C. C. Chadborn, vice-president and treasurer; J. P. Quelch, secretary.

## MINING

Centerville, Tenn.—Phosphate.—J. B. Walker, recently reported to develop phosphate deposits, is owner of phosphate properties, but does not expect to install plant or machinery soon.

Joplin, Mo.—Lead and Zinc.—Princess Anne Mining Co. incorporated with \$12,000 capital stock by M. C. Ferebee, Frank Watkins, S. E. Snyder and others.

Little Rock, Ark.—Diamonds.—Arkansas Diamond Co. incorporated with \$1,000,000 capital stock; Moshead Wright, president; John F. Boyle, Jr., vice-president; W. B. Smith, secretary and treasurer.

Pelree City, Mo.—Lead and Zinc.—Wentworth Lead, Zinc Mining & Manufacturing Co. incorporated with \$10,000 capital stock by George H. Mills, James K. Saunders, H. V. Worley and others.

Radford, Va.—Hone Stone, etc.—C. A. Beinkampen and others have not completed organization of company recently noted to develop water hone stone property seven miles from Radford; no building plans made; will manufacture razor hones, pocket whetstones, etc. (See "Machinery Wanted.")

Spruce Pine, N. C.—Mica.—English Mica Co., recently reported incorporated with \$125,000 capital stock, has acquired lease on mica mines and will develop; will soon begin construction of two mills; has begun development of water-power to operate mills; with-

in 60 days will be ready to supply cut mica, and within six months ground mica of all classes; R. R. Dent, president; executive offices at 347 Pine St., Williamsport, Pa.

Vicksburg, Miss.—Sand and Gravel.—Park City Sand & Gravel Co. incorporated with \$30,000 capital stock by C. Hartweg, W. Callahan, George Clifton and others.

Winnfield, La.—Marble.—Southern Mineral & Development Co., S. H. Houston, engineer, New Orleans, La., will shortly begin development of marble quarry at Winnfield; as soon as construction of Marble Quarry Railroad is completed company will establish rock crusher.

### MISCELLANEOUS CONSTRUCTION WORK

Charleston, S. C.—Filling Work.—Charleston Consolidated Railway, Gas & Electric Co. will fill in Cove Trestle, between Mt. Pleasant and Sullivan's Island, about 4500 feet long, gradually from year to year, leaving opening of about 1500 feet; work will be done by company and no bids will be invited or any additional machinery and supplies purchased. (Recently mentioned.)

Columbia, Tenn.—Underpass.—Louisville & Nashville Railroad, W. H. Courtenay, chief engineer, Louisville, Ky., contemplates, it is reported, construction of underpass on Cemetery avenue, Columbia.

Houston, Texas.—Drainage.—Harris County Drainage District No. 1 will construct about 350,000 cubic yards of ditching; depth 4 to 5 feet; base 4 to 20 feet, with 1 to 1 slope; bids to be opened January 6. George F. Horton, drainage engineer, Theater Bldg., Houston. (See "Drainage" in "Machinery, etc., Wanted.")

Kansas City, Mo.—Irrigation.—National Land & Subirrigation Co. organized with \$3,000,000 capital stock and John L. Wiggins, Dallas, Texas, president; M. E. Yinger, vice-president; L. Underwood, secretary; Oscar T. Gregory, treasurer, all of Kansas City; will install experimental stations, to be equipped with subirrigation system, in Southwestern Texas and other States.

New Orleans, La.—Wharves.—Dock Board authorized its engineers to prepare plans and specifications for construction of 2000 feet of wharf to cost \$200,000; construction of wharf from Lafayette street to Southern Pacific sheds; shed from Canal street to Southern Pacific shed, and roadways behind completed wharves.

Sumter, S. C.—Heating Plant.—City Council Opera Committee will install heating plant in opera-house; bids are asked; N. Bultman, chairman. (See "Machinery Wanted.")

Texas City, Texas.—Wharf.—Texas City Terminal Co. will construct wharf; reported that structure will be 400 feet wide and 800 feet long, all under shed; 10 tracks; capacity of 50 cars; cost about \$175,000; leased for five years by Texas City Steamship Co.

Uniontown, Ky.—Docks.—Ward Douglas, Cincinnati, Ohio, and associates will, it is reported, construct docks at Uniontown; construction by J. C. Hubner, Duluth, Minn.

### MISCELLANEOUS ENTERPRISES

Annapolis, Md.—Ferry Farm Realty Co., recently reported incorporated, has organized with \$300,000 capital stock; Harry Welles Rusk, Law Bldg., president; Townsend Scott of Townsend Scott & Son, 209 East Fayette St., vice-president; J. Krebs Rusk, Law Bldg., secretary-treasurer; all of Baltimore, Md.; to develop 250 acres of land on Severn River; modern roads will be constructed, water-works will be installed, property laid out into villa sites and other improvements made; name of development to be Manmana on the Palisades of the Severn; will expend about \$200,000 for improvements, including purchase of property; have offices in Law Bldg., Baltimore, Md., and in Annapolis.

Birmingham, Ala.—Land Improvement.—Magic City Co-operative Improvement Co. incorporated with James D. Bell, president; E. G. C. Fennell, vice-president; E. W. Tillman, secretary; James Adams, assistant secretary; W. D. Ridgeway, treasurer and soliciting agent.

Charleston, W. Va.—Implements.—Charleston Implement Co. incorporated with \$10,000 capital stock by W. H. Haddock, M. M. Finney and others.

Charlotte, N. C.—Contracting.—Charlotte Contract Co., Piedmont Bldg., recently reported incorporated with \$50,000 capital stock by S. B. Sargent, F. W. Comb and others, will design and install pipe works; will make specialty of fire-protection equipment, steam and hot-water heating and power plant piping; will also furnish and erect textile and oil-mill equipment and repair engines and other machinery; plans

for building, etc., not yet ready for announcement. (See "Machinery Wanted.")

Charleston, W. Va.—Land Improvement.—Hominy Creek Land Co. incorporated with \$50,000 capital stock by George E. Price, R. S. Spilman, Buckner Clay and others.

Chesterfield, S. C.—Land Improvement.—Montrose Company incorporated with \$30,000 capital stock by T. G. Matheson and D. S. Matheson.

Childress, Texas.—Hardware.—Wright-Wilson Hardware Co. incorporated with \$20,000 capital stock by L. B. Wright, G. W. Wilson, E. L. Biggerstaff and W. L. Underwood.

Clayton, Mo.—Land Improvement.—Glen Heights Realty Co. incorporated with \$10,000 capital stock by Beverly S. Stevens, Hiram L. Stevens and others.

Columbia, Miss.—Transportation.—Columbia & Pearl River Transportation Co. incorporated with \$10,000 capital stock by N. R. Drummond, W. E. Lampton, J. H. Hill and others.

Darlington, S. C.—Publishing.—Darlington Publishing Co. incorporated with \$6000 capital stock; A. G. Kollock, president; J. Monroe Speers, vice-president and treasurer; J. P. Gilmore, secretary.

Eureka Springs, Ark.—Grain.—Eureka Springs Grain Co. incorporated with \$3500 capital stock by Tillie Seidel, J. H. Lamar, F. S. Baker and H. S. Seidel.

Fitzgerald, Ga.—Publishing.—Fitzgerald Publishing Co. organized with \$12,000 capital stock and privilege of increasing to \$25,000; John W. Greer, editor; company has taken over plant of Fitzgerald Enterprise and will publish Fitzgerald Daily News.

Fort Gibson, Okla.—Crushed Stone.—Muskogee Crushed Stone Co., recently reported incorporated (under Muskogee, Okla.), will establish plant near Fort Gibson; F. J. Slidner, president; G. R. Bascom, secretary; J. W. Shannon, treasurer; cost of crusher outfit \$15,000; capacity 900 cubic yards daily.

Fort Smith, Ark.—Printing.—A. D. Sutton & Co. incorporated with \$10,000 capital stock by A. D. Sutton, Fred J. Klein, George A. Lane and others.

Fort Worth, Texas.—Grain Elevator.—Crouch-Pool Grain Co., J. B. Pool, manager, recently noted to establish grain elevator, has not decided on size or capacity; grain elevating and cleaning machinery not purchased.

Fort Worth, Texas.—Land Improvement.—South Fort Worth Land Co. incorporated with \$30,000 capital stock by John C. Ryan, G. H. Colvin and James Ryan.

Harrisonville, Mo.—Hardware.—Burch Bros. Hardware & Mercantile Co. incorporated with \$30,000 capital stock by C. F. Watt, James B. Famuliner, C. W. Burch and others.

Hinton, W. Va.—Land Improvement.—Hinton-Bellevue Realty Co. incorporated with \$112,000 capital stock by H. Ewart, James H. Miller, both of Hinton; J. P. Nelson, Lexington, Ky., and others.

Houston, Texas.—Land Improvement.—Ashbel Smith Land Co. has increased capital stock from \$7000 to \$14,000.

Houston, Texas.—Engines.—Southern Gas & Gasoline Engine Co. incorporated with \$10,000 capital stock; T. D. Quereau, president; C. W. Marlin, manager; C. A. Leavins, secretary and treasurer; offices at 615 Washington avenue.

Indian Trail, N. C.—Supplies.—Indian Trail Supply Co. incorporated by T. C. Collins, J. W. Rollins and R. H. Hargut.

Kansas City, Mo.—Stockyards.—Kansas City Stockyards Co. of Missouri is completing arrangements for erection of eight-story live-stock exchange building with frontage of 268 feet, new cattle and hog pens and horse and mule barns; old horse and mule barns to be razed and cattle and hog pens erected on that site; cost of improvements \$750,000. (Mentioned in October.)

Kansas City, Mo.—Land Improvement.—Belle Meade Land Co. incorporated with \$25,000 capital stock by Julia K. Threlkeld, Stella Francis Jenkins and others.

Knoxville, Tenn.—Stanton-Michael Company incorporated with \$15,000 capital stock by J. P. Stanton, E. H. Michael, J. P. McMuller and others.

Lexington, Ky.—Motor Cars.—Lexington Motor Car Co. incorporated with \$50,000 capital stock by J. C. Moore, G. D. Wilson, V. K. Dodge and others.

Macon, Ga.—Hardware.—Balkcom Hardware Co. incorporated with \$7500 capital stock and privilege of increasing to \$25,000 by M. C. Balkcom, Sr., R. H. Plant, Jr., and others.

Manchester, Va.—Plumbing and Heating.—S. H. Guza Plumbing & Heating Co. incorporated with \$15,000 capital stock; S. H.

Guza, president, Manchester; G. B. Graham, secretary and treasurer, Richmond, Va.

Memphis, Tenn.—Contracting and Paving.—Mineral Rubber Paving Co. incorporated with \$50,000 capital stock by Louis T. Kavanaugh, M. J. Roach, Ed. Manigan and others.

Montgomery, Ala.—Seed.—Harvey Seed Co. incorporated with \$15,000 capital stock by A. R. Harvey, B. H. Brown and P. O. Frauson.

Natchez, Miss.—Express and Telegraph.—Simms Express & Telegraph Co. incorporated with \$10,000 capital stock by A. P. Simms, W. P. McCamley and others.

New Orleans, La.—Plumbing.—Meunier Plumbing Co. incorporated with \$25,000 capital stock by D. Frank Meunier, Clarence H. Neblett, Frederick S. Decker, Jr., and others.

New Orleans, La.—Planting.—Llnade Planting Co. incorporated with \$50,000 capital stock by R. S. Jones, W. B. Spencer and Mrs. A. Spencer.

New Orleans, La.—Contracting.—Galennie Company, Ltd., incorporated with \$25,000 capital stock; Jules S. Galennie, president; William T. Coates, vice-president; J. L. A. Devlin, secretary and treasurer.

New Orleans, La.—Land Improvement.—Alluvial Lands Operating Co. incorporated with \$120,000 capital stock; Louis H. Owen, president and treasurer; C. W. Wickey, J. W. Lobb and Albert Phenix, vice-presidents; J. D. Owen, secretary.

Norfolk, Va.—Steam Laundry.—People's Steam Laundry & Pressing Co. incorporated with \$25,000 capital stock; D. W. Byrd, president; J. H. Mercer, vice-president; A. J. Strong, secretary and treasurer.

Ochiltree, Texas.—Printing.—Eagle-Investigator Printing Co. incorporated with \$3000 capital stock by J. B. Cartwright, J. W. Payne and S. J. Allen.

Portsmouth, Va.—Incinerator.—City will establish incinerator plant to cremate all garbage and refuse; estimated cost, \$20,000; 25 tons capacity; building to be of ordinary construction; Street Committee, E. B. Hawks, chairman, will advertise bids about December 17.

Purcellville, Va.—Printing Plant.—Purcellville Publishing Co., Geo. W. Case, president, recently reported incorporated, has purchased and installed printing machinery.

Richmond, Va.—Contracting.—I. J. Smith & Co. incorporated with \$100,000 capital stock; I. J. Smith, president; J. D. Patton, vice-president; C. E. Wingo, Jr., secretary and treasurer.

Savannah, Ga.—Cotton Pickery.—Floyd & Co. will rebuild at once cotton pickery reported destroyed by fire at loss of \$5000.

St. Louis, Mo.—Land Improvement.—Fardell Realty Co. has increased capital stock from \$10,000 to \$20,000.

St. Louis, Mo.—Land Improvement.—Bentbow Realty & Investment Co. incorporated with \$5000 capital stock by Richard A. Bullock, George B. Bullock and James A. Bullock.

St. Louis, Mo.—Garage.—Maxwell-Briscoe Motor Vehicle Co. incorporated with \$15,000 capital stock by Valentine Heinrich, L. L. Milky, H. M. Paine and others.

Suffolk, Va.—Peanuts.—Farmers' Mutual Peanut Co. incorporated with \$25,000 capital stock; D. K. Joyner, president and treasurer; J. F. Duke, vice-president; J. R. Cockey, secretary.

Washington, Ark.—Plantation.—Grand View Plantation Co. incorporated with \$100,000 capital stock; F. M. Merrell, president; N. A. Sunderlin, vice-president; B. C. Stuart, secretary; L. R. Merrell, treasurer.

Westminster, S. C.—Steam Laundry.—J. H. Shirley, H. E. Rosser, Burt Mitchell and others are promoting establishment of steam laundry; 40-horse-power engine with sufficient power to light town, if town wishes to use it, will be installed; operation to begin about January 1.

Wilmington, N. C.—A. O. McEachern will rebuild Shadeland Dairy plant reported destroyed by fire at loss of about \$8000; rebuilding has begun.

Woodward, Okla.—Land Improvement.—Oklahoma Land & Townsite Co. incorporated with \$50,000 capital stock by N. C. Taylor, M. P. Taylor and M. J. Taylor.

Yukon, Okla.—Wells Grain Co., recently reported incorporated, will operate grain elevator of 1500 bushels capacity; machinery mainly installed; O. P. Wells, president; H. T. Burson, secretary and treasurer. (See "Machinery Wanted.")

### MISCELLANEOUS MANUFACTURING PLANTS

Amarillo, Texas.—Sugar.—W. G. Hotchkiss, Cleveland, Ohio, proposes establishment of beet-sugar factory in Amarillo.

Atlanta, Ga.—Cigars.—Humler & Nolan Cigar Co., lately mentioned, will be incorporated by Burt Humler, W. J. Nolan and Oscar A. Humler. (Recent notice slightly incorrect.)

Athens, Ga.—Creamery and Dairy.—State College of Agriculture, University of Georgia, will install dairying and creamery machinery. (See "Machinery Wanted.")

Baltimore, Md.—Paper Boxes.—Monumental Paper Box Co. awarded contract to John F. Kunkel, 413 King St., Baltimore, for erection of factory building at 515, 517 and 519 Warner street; three stories; 44x74 feet; mill construction; brick exterior walls; cost about \$10,000.

Baltimore, Md.—Women's and Children's Garments.—Eclipse Manufacturing Co., 911 North Gay St., has leased property at Fayette and Front streets and 708 East Fayette street, corner building will be reconstructed and new building erected on adjoining site; electric elevator and steam-heating plant will be installed. Henry Erdman, one of owners of property, will superintend construction.

Charlotte, N. C.—Automobiles.—Mecklenburg Auto Repair Co. incorporated with \$5000 by E. T. James, G. W. Wells and L. E. Davis; to manufacture and repair automobiles.

Charlotte, N. C.—Ball-bearing Hubs and Wheels.—Suspension Ball-Bearing Co., W. W. Neighbor, Dennison, Texas, president, recently noted incorporated, will operate in building already equipped; manufacture radial bearings, buggies, wagons, hook-and-ladder trucks, fire-engines and heavy truck hubs.

Chattanooga, Tenn.—Marble Products.—Marble Products Co., J. R. Thomas and N. R. Cunningham, directors, New York, proposes establishment of plant in Chattanooga for manufacturing marble products.

Chattanooga, Tenn.—Medicines.—Black Draught Stock Medicine Co., J. A. Patten, president, will occupy brick factory building now being constructed in St. Elmo (suburb) by Chattanooga Medicine Co.; contemplate erection of factory later; will manufacture Black Draught stock and poultry medicine, liniment and disinfectant; sales office, Hotel Patten Block. (Previously noted incorporated with \$100,000 capital stock.)

Chillicothe, Mo.—Gas Plant.—City will receive bids for construction of gas and electric-light plant for street and commercial lighting. Address The Mayor. (See "Electric-light and Power Plants.")

Columbia, Tenn.—Fertilizer.—Federal Chemical Co., Louisville, Ky., will, it is reported, expend about \$50,000 for installing new machinery and repairing present equipment of Century Phosphate Co., Century & Tennessee Phosphate Co., Ripley; both branches of Federal Chemical Co.

Decatur, Ala.—T. E. Alken, Nashville, Tenn., contemplates establishment of fertilizer plant in Decatur.

Del Rio, Texas.—Hospital Beds.—Smith Hospital Bed Co. incorporated with \$20,000 capital stock by C. O. Fokes, E. W. Smith and L. Rust.

El Paso, Texas.—Lard.—J. D. Dale, Dallas, Texas, will establish lard factory.

El Reno, Okla.—Ice Cream.—El Reno Ice Cream Co. incorporated with \$10,000 capital stock by E. A. Liebmam, Sulphur Springs, Okla.; J. L. Trevathan and Lucius Babcock, both of El Reno; Mr. Liebmam will be manager.

Fort Worth, Texas.—Bottling.—Artesia Bottling Works will erect factory building; one story; brick; 38x80 feet; cost \$3400; A. O'Neill, Fort Worth, contractor.

Greensboro, N. C.—Sewer Pipe, etc.—Terra-Cotta Company will, it is reported, expend about \$60,000 for erection of additional buildings and equipment.

Greenville, S. C.—Simpsonville Manufacturing & Mercantile Co. incorporated with \$12,000 capital stock by B. W. Burdett, Thomas T. Goldsmith and T. D. Wood.

Hagerstown, Md.—Dairy Products.—Joseph Forward, Shepherdstown, W. Va., is organizing company with \$15,000 capital stock to establish sanitary dairy in Hagerstown; will manufacture all kinds of dairy products, making a specialty of pasteurizing milk.

Hallister (not a postoffice), Texas.—Turpentine.—Ginn & Co. incorporated with \$2000 capital stock by H. H. Wickline, J. A. Mooney, both of Woodville, Texas, and others.

Jacksonville, Ala.—Fertilizer.—Jacksonville Fertilizer Co. incorporated with \$15,000 capital stock by J. H. Privett, J. F. Crow and J. P. Burke.

Kansas City, Mo.—Implements.—Smith & Sons Implement Co. incorporated with \$10,000



capital stock by William J. Smith, William F. Smith and Edward B. Smith.

Knoxville, Tenn.—Dairy Products.—Racy Cream Co. incorporated with \$10,000 capital stock; F. B. Stuart, president and manager; W. H. Gray, secretary and treasurer; building is being constructed; with 6,500 feet of floor space; concrete; cold-storage plant and machinery for pasteurizing, churning, etc., will be installed.

Knoxville, Tenn.—Ice Cream.—Knoxville Pure Milk Co. will erect two extensions to plant and install additional equipment; ice-cream refrigerating plant will be installed; walls of cabinets to be lined with cork one foot thick; two vats with capacity of 300 gallons will be added; cost of improvements about \$20,000.

Knoxville, Tenn.—Knoxville Tinware Manufacturing Co. incorporated with \$30,000 capital stock by W. F. Lenoir, T. H. Stewart, J. A. Mancier and others.

Knoxville, Tenn.—Paint.—French Broad Sienna Paint Co. organized; H. Kries, president; J. B. Hodges, vice-president; J. B. Irvin, secretary; J. M. Leck, treasurer; plans for erection of buildings and development of plant not definitely settled; secretary's address, 615 Prince St.

Lagrange, Texas.—Creamery.—A. Hansan will establish creamery.

Lagrange, Texas.—Creamery.—Creamery recently noted to be established in Lagrange under management of Houston & Alvin Creamery Co., M. Mathewson, manager, Houston, Texas, will include \$1000 building, 40x60 feet; will open proposals for machinery January 1; daily capacity, 1000 pounds butter. (See "Machinery Wanted.")

Little Rock, Ark.—Trunks and Bags.—Little Rock Trunk & Bag Co. incorporated with \$5,000 capital stock by B. P. Kidd, R. A. Kidd, A. H. Gates and others.

Macon, Ga.—Boots and Shoes.—E. A. Waxelbaum & Bro. incorporated with \$50,000 capital stock by Gates Waxelbaum and Mrs. E. A. Waxelbaum.

Nocona, Texas.—Nocona Drug Co. incorporated with \$4000 capital stock by R. B. Clark, J. J. Berry, B. T. Davis and M. D. Goldsmith.

Norfolk, Va.—Pianos.—Virginia Auto-Electric Piano Co. incorporated with \$15,000 capital stock; D. E. Levy, president; Moe Levy, secretary and treasurer.

Oklahoma City, Okla.—Gypsum Products.—Oklahoma City Gypsum Co., recently reported incorporated with \$100,000 capital stock by B. F. Burwell and others, will develop 480 acres of gypsum and gypsite deposit owned by John O'Neill; estimated production not less than 100 tons daily; will manufacture all gypsum products; plans for plant, machinery, etc., not decided; Frank W. Fowler, Blue Rapids, Kans., manager.

Radford, Va.—Hones, Whetstones, etc.—C. A. Beinkamp and others, recently noted to organize company to manufacture razor hones, etc., are asking quotations on machinery; will produce grindstones, mill rock and pocket whetstones and make powder for polishing brass, steel, other metals and glass. (See "Mining" and "Machinery Wanted.")

Roslyn, Va.—Ladies' and Children's Apparel.—M. Phillipsborn & Co. incorporated with \$50,000 capital stock; M. Phillipsborn, 608-614 Eleventh St. N. W., president; I. Behrend, 3032 N. St. N. W., secretary and treasurer, both of Washington, D. C.

St. Louis, Mo.—Electrical Devices.—St. Louis Storage Battery Co. incorporated with \$200,000 capital stock by William Gardiner, John Strien, William G. Evers and others.

St. Louis, Mo.—Shoes.—Brown Shoe Co. awarded contract to Murch Bros. Construction Co., St. Louis, for erection of addition to plant; five stories; 55x155 feet; brick and steel construction; fireproof throughout; storing capacity will be increased several thousand more tons of raw leather and facilities of Buster Brown plant will be increased to several more hundred pairs of shoes daily; approximate cost \$50,000; plans by A. B. Groves, St. Louis.

St. Louis, Mo.—Chemicals.—Restorall Chemical Co. incorporated with Judd Q. Lloyd, John S. Poindexter and George T. Pumphrey.

Washington, N. C.—Builders' Supplies.—Interstate Supply Corporation, Norfolk, Va., will establish plant in Washington for manufacturing builders' supplies.

Wharton, Texas.—Mattresses, etc.—Wharton Mattress Factory will establish plant to manufacture mattresses of all grades, pillows, pads, etc.; will erect ironclad building 24x70 feet; H. G. Ferguson, manager and secretary. (See "Machinery Wanted.")

Wheeling, W. Va.—Hinges and Window

Sashes.—Fleming Novelty Co. incorporated with \$25,000 capital stock by Edward Fleming, Chester Hutchinson, Thomas Haskins and others.

Williamsport, Md.—Overalls and Shirts.—Barnhart & Benchley Company incorporated with \$40,000 capital stock; will absorb plant of A. W. Barnhart & Co.; will erect addition to main factory; brick; three stories; 30x75 feet; cost \$5000 to \$6000; further plans not announced; architect and engineer not engaged.

Winston Salem, N. C.—Tobacco.—R. J. Reynolds Tobacco Co. will probably erect tobacco factory; brick; three or more stories.

### RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Cape Charles, Va.—New York, Philadelphia & Norfolk Railroad Co., J. G. Rodgers, Cape Charles, superintendent, contemplates erecting machine shops at Cape Charles.

Brunswick, Ga.—Macon & Brunswick Navigation Co., W. A. Gamble, traffic manager, is negotiating for water-front property, and plans to expend about \$50,000 for erection of terminals.

Macon, Ga.—Central of Georgia Railway, J. F. Hanson, president, contemplates enlarging Macon shops; nothing definite decided; work will proceed on new roundhouse.

### ROAD AND STREET IMPROVEMENTS

Ada, Okla.—City has voted \$81,500 of bonds to improve streets and parks, etc. Address The Mayor (See "Water-works.")

Ada, Okla.—City will invite new bids for paving 12th street with vitrified brick; width 72 feet; cement filler and Portland-cement concrete base of five inches; W. B. Jones, City Clerk. (Recently mentioned.)

Ardmore, Okla.—City will vote on issuance of \$300,000 of bonds for street improvements and erection of school building. Address The Mayor.

Boston, Texas.—Bowie county, Precinct No. 1, voted \$250,000 road and bridge bonds. Address County Commissioners. (Noted in October.)

Carthage, Mo.—City is considering paving of streets around public square and portions of streets leading to public square; F. B. Newton, City Engineer, estimates that work will require 600,000 large paving blocks; total cost, including all materials, tools and labor, about \$27,700.

Charlotte Court House, Va.—Charlotte county will vote January 14 on issuance of \$100,000 of bonds for road improvements. Address County Commissioners.

Chattanooga, Tenn.—E. P. Norris, Duncan Ave. and Spruce St., Chattanooga, has contract at \$22,407.50 to build about 4100 feet chert roadway on 11th street, with granite curbstone and cement sidewalks; proposals for 1000 cubic yards chert rejected. (Recently mentioned.)

Houston Heights, Texas.—City Council will consider bond issue of \$25,000 for drainage, street improvements and fire protection. Address The Mayor.

Huntsville, Ala.—City Council adopted ordinance for paving West Clinton street; space between and 18 inches on each side of rails of electric and other railroads to be laid in vitrified brick; remainder of street in asphalt; concrete curbing; vitrified-brick gutters. Address The Mayor. (Recently mentioned.)

Jacksonville, Fla.—Street Committee will include following paving items in report: Myrtle avenue, Adams street to King's road, \$6406.09; Clay street, Forsyth to Ashley, \$1594.40; Ward street, Clay to Bridge, \$423.32; Florida avenue, Jessie street to Darwin, \$1932.19; Beaver street, Main to Newman streets, \$1231.16; Osceola street, Riverside to Park, \$1735.45; Walnut street, 1st to 8th, \$485.95; Laura street, 4th to 8th, \$4003.37; Philip Prioleau, City Engineer.

Montgomery, Ala.—City has passed substitute ordinances for paving Moulton street and Jeff Davis avenue to allow contractors to bid on Blome patent granitoid pavement; Amanda substitute ordinance has been indefinitely postponed; A. R. Gilchrist, City Engineer.

Muskogee, Okla.—City awarded following contracts for sheet-asphalt paving, aggregating \$300,000: Parker-Washington Company, 4500 Duncan Ave., St. Louis, Mo., for about half of work, at \$1.75 per square yard for Bermudez asphalt paving; P. J. McNerney for major part of other half at \$1.89 per square yard for Texico asphalt paving; Cleveland Trinidad Paving Co., Cleveland,

Ohio, two small contracts at \$2.03 for Trinidad asphalt paving, and Heman Construction Co., St. Louis, Mo., at \$1.89 per square yard, for 25,000 square yards Trinidad asphalt paving; L. B. Kinsey, City Engineer. (Recently mentioned.)

Newborn, N. C.—City will vote January 5 on issuance of \$50,000 of bonds for street paving. Address The Mayor.

North Birmingham, P. O. Birmingham, Ala.—City awarded contract to C. M. Burkhalter and to Dunn & Lallande Bros., both of Birmingham, for street improvements; total expenditure about \$25,000.

Orangeburg, S. C.—City awarded contract to Southern Paving Construction Co., Chattanooga, Tenn., at \$21,165.00, for laying 8700 square yards vitrified-brick pavement in Main street; Edward Hawes, Jr., City Engineer.

Pensacola, Fla.—City contemplates laying 634,000 square feet of concrete sidewalks. Address The Mayor.

Robert Lee, Texas.—Coke county will vote on issuance of \$35,000 of bonds for road and bridge purposes. Address County Commissioners.

Salisbury, Md.—Wicomico county will grade and macadamize about 1½ miles of the Athol road between Mardella Springs and Athol; bids to be opened December 15; Thomas Perry, Clerk; H. M. Clark, County Road Engineer. (See "Machinery Wanted.")

Springfield, Mo.—City will pave Market street; G. W. Hackney, City Clerk.

Texarkana, Texas.—City will vote December 12 on issuance of \$134,000 of bonds for street improvements, etc. Address The Mayor.

Tuscaloosa, Ala.—City awarded contract to Tuscaloosa Concrete Co. of Tuscaloosa at 87½ cents per square yard for paving and 25 cents per cubic yard for grading and excavation; work consists of 6917 square yards of paving, amounting to \$6,052.38, and for 2421.9 cubic yards grading and excavation, amounting to \$606.48; W. H. Nicol, City Engineer. (Recently mentioned.)

Westernport, Md.—Charles S. Jeffries, Frostburg, Md., has contract to construct Westernport State aid road, one and one-quarter miles long.

### SEWER CONSTRUCTION

Ada, Okla.—City has voted \$81,500 of bonds for constructing sanitary and storm sewers, etc. Address The Mayor. (See "Water-works.")

Arlington, Texas.—City will vote December 22 on issuance of \$25,000 for construction of sewer system. Address The Mayor.

Blakely, Ga.—City will vote about December 31 on issuance of \$25,000 sewer bonds. Address The Mayor.

Birmingham, Ala.—Street Committee recommended that City Council pass ordinance to provide for construction of sanitary sewers for district between 32d street and the Avondale Boundary; 12-inch piping to be used; estimated cost, \$15,000; Murray Nicholson, City Engineer.

Cartersville, Mo.—City will extend sewer system; L. M. James, Mayor; A. W. Canada, City Engineer.

Clinton, S. C.—Business League contemplates having survey made for sewerage system; J. F. Jacobs, chairman special committee on sewerage. (See "Machinery Wanted.")

Fort Worth, Texas.—North Fort Worth has voted \$50,000 bond issue for construction of sewer system; John F. Grant, Mayor. (Recently mentioned.)

Fitzgerald, Ga.—City will open bids December 15 for construction of sewerage system, consisting of about 20 miles of vitrified-pipe sewers from 6-inch to 18-inch diameter, together with necessary manholes, flush tanks, etc.; A. H. Denmark, secretary Water, Light and Bond Commission; J. C. Anderson, engineer, Garbutt-Denovan Bldg., Fitzgerald. (See "Machinery Wanted.")

Franklin, Ky.—City will soon award contract for construction of sewer system, for which \$20,000 of bonds were recently reported voted; C. E. Biggs, City Clerk.

Inskell, Texas.—O'Neill Engineering Co., Dallas, Texas, will prepare plans for and supervise construction of sewerage system, for which \$7000 of bonds were recently noted to be voted December 31; if election carries, bids will be advertised.

Little Rock, Ark.—E. A. Kingsley, Superintendent of Public Works, estimates cost of constructing storm-water sewer system at \$10,000; will comprise 36-inch sewer north on Louisiana street to Arkansas River from 3d street, and two 24-inch laterals, each one block long.

Macon, Ga.—City is considering construction of sanitary sewers in Vineville. Address The Mayor.

Mobile, Ala.—Mobile Electric Co. has applied for franchise to construct pipe line and sewer from its plant at St. Louis and Royal streets to river, and to erect and maintain pumphouse at foot of St. Anthony street.

Muskogee, Okla.—City expects to have plans for storm sewer system completed by December 10, and bids will be received about December 21; bonds issue of \$300,000 has been sold; L. B. Kinsey, City Engineer. (Recently mentioned.)

Seymour, Texas.—City has voted issuance of \$12,000 of bonds for sewer construction. Address The Mayor. (Recently mentioned.)

Shawnee, Okla.—City will vote on issuance of \$150,000 of sewer bonds. Address The Mayor.

St. Augustine, Fla.—Bids opened December 7 for construction of sewer and appurtenances on Orange street; will require about 2306 feet, linear measure, of 3-inch cast-iron pipe, 18 SxSx6 Y branches; W. S. Pinkham, superintendent and secretary County Board of Public Instruction; Robinson & Rely, architects, St. Augustine.

### TELEPHONE SYSTEMS

Ada, Okla.—Farmers' Independent Telephone Co. has been granted 25-year franchise to operate telephone system in Ada.

Carnegie, Okla.—Carnegie Telephone Co. incorporated with \$10,000 capital stock by G. O. Hall, W. F. Pevey and Mrs. M. Hall.

Gleason Station, Tenn.—Gleason Rural Telephone Co. incorporated by J. E. Goldsby, A. W. Brawner, L. W. Carter and others.

Mt. Sterling, Ky.—Old Kentucky Telephone Co. has purchased 20-year franchise to construct and operate complete metallic telephone system.

Neosho, Mo.—Farmers' Union Telephone Co. incorporated by J. B. Graves, George Hoover, Will T. Matthews and others.

### TEXTILE MILLS

Asheboro, N. C.—O. R. Cox of Thomasville, N. C., will incorporate company to build textile mill.

Columbus, Ga.—Finishing Plant.—Eagle and Phenix Mills will erect another story to its finishing department, doubling capacity of that plant; building is 40x100 feet, and second story will be of brick and standard mill construction; expenditure about \$5000. It is probable that not much additional machinery will be required.

Gaherstown, Md.—Silk Ribbons.—Cromer Bros. is firm name of Chas. W. and Victor M. Cromer, lately noted as to establish silk ribbon mill; are erecting building 36x120 feet, one and two stories high, costing \$5000; electric power will be used; all machinery ordered.

Lebanon, Tenn.—Woolen Goods.—H. K. Edgerton proposes organization of company with \$50,000 capital stock to build woolen mill.

Lineville, Ala.—Hosiery Yarns.—M. B. Lewis of Birmingham, Ala., is planning to form company to build proposed cotton mill lately reported.

Montmorenci, S. C.—Hosiery.—C. E. Hallman will install additional hosiery-knitting machinery soon.

Sanford, N. C.—Bleachery.—Robt. L. Steele of Rockingham, N. C., contemplates building the bleachery lately reported, but has made no definite decision.

Stony Point, N. C.—Cotton Yarns.—J. W. Watts of Lileadown, N. C., proposes forming company to build mill lately mentioned; 4000 spindles; electric power generated from water-power and transmitted two miles; 125 to 150 horse-power; about January 1 will ask bids for erecting buildings; machinery not purchased; capital stock probably \$70,000. (See "Machinery Wanted.")

Summerville, Ga.—Yarns and Cloth.—Proposed company, lately noted, will probably have capital stock of \$250,000 and build plant for 10,000 spindles to manufacture 30s to 40s yarn and complement of looms to weave 38½-inch print cloth. Z. T. McKinney, Greenville, S. C., can give information.

Thomaston, Ga.—Duck, etc.—Thomaston Cotton Mills will, it is reported, add 8000 spindles; now operates 15,000 ring spindles and 288 looms.

### WATER-WORKS

Ada, Okla.—City has voted issuance of \$81,500 of bonds for extending water-works, constructing sanitary and storm sewers, erecting city hall to cost about \$15,000 and improvement of streets and parks. Address The Mayor.

Afton, Okla.—City awarded following contracts for proposed water-works: Deep well, W. B. Waugh, Galena, Kan.; cast-iron pipe, American Cast-Iron Pipe Co., Birmingham, Ala.; tower and tank, Chicago Bridge & Iron Co., Chicago, Ill.; engines, steam specialties, pipe, valves and fittings, English Iron Works, Kansas City, Mo.; generator, exciter and switchboard, Westinghouse Electric & Mfg. Co., Kansas City, Mo.; air-lift equipment and motor-driven pump, Reeves & Skinner, St. Louis, Mo.; boiler, Kansas City Engineering Co., Kansas City, Mo.; W. K. Palmer Company, Dwight Bldg., Kansas City, Mo., consulting engineer; cost estimated at \$30,000.

Ashburn, Ga.—City will vote in December on issuance of bonds for construction of water-works, electric-light plant and school building. Address The Mayor. (Previously mentioned.)

Americus, Ga.—City will construct pumping plant and power-house at water-works; latter will furnish electricity for operating pumps and lighting city. Address The Mayor.

Capitol Hill, Okla.—City contemplates voting on issuance of \$25,000 of bonds for construction of water-works. Address The Mayor.

Cartersville, Mo.—City will construct water-works; L. M. Janes, Mayor; A. W. Canada, City Engineer.

Childress, Texas.—City is considering construction of dam on Baylor Creek and piping water to city; distance about nine miles; \$25,000 of water-works bonds have been voted. Address The Mayor.

Clarkdale, Miss.—City has rejected all bids for construction of reservoir, water mains, hydrants, etc., and will undertake work under supervision of Walter G. Kirkpatrick, engineer, Jackson, Miss.; M. W. Purnell, City Clerk. (Recently mentioned.)

Covington, Ky.—City will open bids December 10 for laying water mains along principal streets of West Covington. Address The Mayor.

Delhi, La.—City contemplates constructing water-works and electric-light plant. Address The Mayor.

Denison, Texas.—City contemplates constructing dam about three miles from city for supplying water; proposed to issue \$30,000 of bonds. Address The Mayor. (City noted in October as having purchased at \$110,000 Denison City Water Co.'s plant.)

Eldorado, Ark.—City granted franchise to John P. Holmes of Eldorado for water-works system.

Enfauila, Ala.—City Council appointed committee to investigate cost of boring artesian well, building new dam and installing turbines. H. B. Dowling, superintendent of water-works and sewers. (See "Electric-Light and Power Plants.")

Fitzgerald, Ga.—City will extend water-works; construction by day's labor under superintendence; cost \$25,000; will install air and compound steam air compressor and duplex Worthington compound pump; reservoir, 16x34 feet; 5½ miles mains; cast-iron pipe, hydrants and machinery to be purchased December 15; A. H. Denmark, secretary Water, Light & Bond Commission.

Fort Worth, Texas.—City has voted \$20,000 of bonds for extension of water-works; John F. Grant, Mayor. (Recently mentioned.)

Haskell, Texas.—O'Neil Engineering Co., Dallas, Texas, has been engaged to prepare plans and supervise construction of water-works, for which \$23,000 of bonds were recently voted to be voted December 31. If election carries, bids will be advertised.

Hobart, Okla.—City will install pump with capacity of 2,000,000 gallons per 24 hours; O. E. Noble, City Engineer. (See "Machinery Wanted.")

Huntsville, Ala.—City Council has authorized Mayor Smith to advertise for bids for laying water mains into the Patton Addition; work to be done according to specifications of street superintendent.

Jellico, Tenn.—City has engaged J. B. McCrary & Co., Atlanta, Ga., to prepare preliminary surveys, plans and specifications for water-works system; S. B. Snyder is Mayor.

Kaufman, Texas.—City has voted issuance of bonds for extension of water mains. Address The Mayor.

Keyser, W. Va.—City is considering construction of retaining dam below present reservoir dam, at cost of \$10,000, for retaining overflow of water and leakage from present dam; this action suggested by L. E. Chapin of Chapin & Knowles, Pittsburg, Pa.

Macon, Ga.—City is considering laying of water mains for fire protection in Vineville. Address The Mayor.

Mingo, Okla.—City is making preliminary arrangements for construction of water-

works and electric-light plant, pending result of bond election soon to be held; Burns & McDonnell, Dwight Bldg., Kansas City, Mo., have been engaged as engineers, bonds have been conditionally disposed of, and it is expected to award contract for construction within next 60 days; J. C. Kinzey, Mayor; W. E. Showen, Clerk. (Recently mentioned.)

Muskogee, Okla.—City has disposed of \$250,000 bond issue for construction of water-works; contracts will soon be awarded; L. B. Kinsey, City Engineer. (Recently mentioned.)

North Birmingham, P. O. Birmingham, Ala.—City Council passed ordinance providing for survey for water system to supply 50,000,000 gallons of water every 24 hours; water to be obtained from Slipsey River. Address The Mayor.

Osceola, Ark.—City will receive bids about February 1 for construction of water-works; estimated cost, \$25,000. Address The Mayor. (Recently mentioned.)

Seymour, Texas.—City has voted issuance of \$28,000 of bonds for water-works system. O'Neil Engineering Co., Wilson Bldg., Dallas, Texas, prepared plans and will purchase material. Bids will be advertised. (Recently mentioned.)

St. Louis, Mo.—Preliminary work on proposed \$50,000 water station at new Insane Asylum has begun under supervision of Water Commissioner Adkins; plant will be part of general lighting, heating and refrigerating system at asylum. Andrew J. O'Reilly is president Board of Public Improvements.

Walterboro, S. C.—City contemplates issuance of \$25,000 of bonds to complete water-works and erect school building. Address The Mayor.

Washington, D. C.—G. & W. Manufacturing Co., 26 Cortlandt St., New York, is lowest bidder at \$11,943 for construction of auxiliary water system and fire protection for Home for Aged, subdivisions of Bellevue and Blue Plains, District of Columbia; will erect small addition to power-house and elevated tank of 23,000 gallons capacity, construct pipe lines, drill artesian well, etc.; William L. Webster, superintendent construction, 104 District Bldg., Washington. (Recently mentioned.)

### WOODWORKING PLANTS

Artemus, Ky.—Staves.—Flat Lick Stave Co., Flat Lick, Ky., will, it is reported, establish several mills near Artemus.

Bedford City, Va.—Boxes.—Paul Bergaman will establish plant for manufacturing boxes; construction has begun.

Berryville, Ark.—Spokes.—C. L. Scott contemplates spoke factory in connection with sawmill recently purchased. (See "Lumber-manufacturing Plants.")

Big Stone Gap, Va.—Handles.—Wade & Co., organized by C. E. Wade and Hamblen Bros., will establish handle factory.

Birmingham, Ala.—Office Fixtures, Stairways, etc.—Grant-Bauer Lumber Co., 1109-1115 Ave. E., will manufacture office and store fixtures, special stairways, hardwood and pine finish; J. D. Dabney, president; Louis V. Clark, vice-president; N. McN. Grant, secretary and treasurer; J. A. Bauer, general manager; machinery mainly supplied; no building to be erected. (See "Machinery Wanted.")

Columbia, Tenn.—Furniture.—W. J. Oakes will establish chair and furniture factory.

Columbus, Ga.—Office Fixtures.—Company has been incorporated with \$50,000 capital stock by O. C. Bullock, J. H. Dimon and others to take over and operate plant of Columbus Furniture & Fixture Co.; new equipment will be added; company will manufacture showcases and office fixtures.

Dawson, Ga.—Sashes, Doors and Blinds.—Gels Variety Works Co. is completing arrangements for rebuilding burned plant; new structure to be 75x100 feet; machinery purchased from J. A. Fay & Egan Company, Cincinnati, Ohio; construction has begun. (Previously mentioned.)

Edgemont, Ark.—Staves, Headings, etc.—Globe Cooperage & Lumber Co., recently reported incorporated, will establish plant for manufacturing staves, headings and building material; will also operate sawmill with capacity of 40,000 feet of lumber daily and cotton gin.

Fayetteville, Ark.—Spokes.—J. M. Phillips, Red Star, Ark., will establish spoke factory in Fayetteville.

Galveston, Texas.—Island City Woodworking Co. Incorporated with \$10,000 capital stock by Mills C. Bowden, Fred Gertel and Fred Barthelme.

Lynchburg, Va.—Furniture.—Banner Furni-

ture Co. Incorporated with \$25,000 capital stock; W. S. Fleenor, president; E. T. Beall, secretary.

Memphis, Tenn.—Handles.—Rex Handle Co., M. R. Grace, president, has, it is reported, purchased and will install new machinery and operate plant of Consolidated Handle Co. with capacity of 300 dozen handles daily.

Morrilton, Ark.—Staves.—Greenville Stave Co., Little Rock, Ark., will establish floating stave mill at Morrilton for cutting several thousand acres of white oak stave timber.

Nashville, Tenn.—Rules, etc.—American Rule & Manufacturing Co. Incorporated with \$10,000 capital stock by H. W. Durham, E. R. Winkler, J. M. Wells and others.

New Orleans, La.—Boxes, etc.—Robinson Lumber, Veneer & Box Co., Incorporated with \$50,000 capital stock by C. W. Robinson, Robert G. Robinson and Wyatt H. Ingram, Jr.

Palestine, Texas.—Boxes and Crates.—R. J. L. and Frank Morris and C. M. Key will establish box and crate factory; necessary buildings will be erected and equipped.

Searcy, Ark.—Staves.—Henry Wrape Stave Co. is preparing to install another plant at Searcy.

St. Louis, Mo.—Staves, etc.—Missouri Cooperative Co. Incorporated with \$30,000 capital stock by Lester D. Fast, St. Louis; Ephraim Vail, Cardwell, Mo., and others.

Washington, N. C.—Vehicles.—Washington Buggy Co. will erect factory building; two stories; brick; about 100x250 feet; plant is branch of Hackney Bros., Wilson, N. C.

### BURNED.

Academy, W. Va.—R. F. Rodgers' sawmill. Alexandria, La.—S. E. Garner's residence; loss about \$3500.

Bartow, Fla.—S. Barefoot's shingle mill; loss about \$8000.

Beaumont, Texas.—Chester A. Easley's residence; loss about \$10,000.

Belington, W. Va.—Floyd Teter's business block; loss about \$75,000.

Blackville, S. C.—Southern Railway's depot; loss \$12,000; D. W. Lum, chief engineer, Washington, D. C.

Binger, Okla.—Binger Gin & Grain Co.'s cotton gin; loss \$8000.

Charleston, W. Va.—Goff Bros.' livery stable; building owned by Peter Silman; loss about \$15,000.

Checotah, Okla.—Gin and grist mill of Checotah Cotton Oil Co.; loss about \$14,000.

Chester, S. C.—John Frazier's feed and sales stables.

Fredericksburg, Va.—J. H. Biscoe's warehouse and building; estimated loss \$10,000.

Gonzales, Texas.—A. W. Harmon's barn; loss about \$3000.

Grand Cane, La.—John Ervant's drykiln.

Granite, Okla.—M. D. Sultor's livery barn; loss \$2500.

Gulfport, Miss.—J. H. Woodson's three business buildings, occupied by Maltsby & Thomas, Woodson & Whitehead and one occupied by the owner.

Hasty, P. O. Fairfax, Ga.—J. J. Murray's cotton gin; loss \$7000.

Hopkinsville, Ky.—T. J. McReynolds' residence; loss about \$6000.

Joaquin, Texas.—Store buildings of John Pierce, G. R. Chambers and J. E. Thomas; loss about \$10,000.

Knoxville, Tenn.—Plants of Clark Hat Co. and Knoxville Implement & Machinery Co.; loss about \$50,000.

Lancaster, S. C.—Lancaster Mercantile Co.'s warehouse; Bennett Grocery Co.'s warehouse and cottonseed house; loss \$15,000.

Lexington, Miss.—Merchants and Farmers' Bank & Trust Co.'s building, loss \$30,000; Williams Furniture Co.'s building, loss \$5000; American Express Co.'s offices and warehouse; Lexington Bottling Works, loss \$1500.

Maud, Okla.—Store buildings of J. A. Smith, W. R. Horton, Dr. Cone and George Hollis.

McBee, R. F. D. from Millport, Ala.—Neal Lawrence's cotton gin and seedhouse; loss about \$5000.

Maryville, Tenn.—W. B. Lawrence Furniture Co.'s plant; loss about \$5000; building owned by Gamble & Waller; loss on building about \$2500.

Memphis, Tenn.—Orgill & Bros.' warehouse; loss about \$50,000.

Monroe, La.—Haynes Lumber Co.'s planing mill and manufacturing plant; loss about \$25,000.

Opelousas, La.—B. S. Splone's hay storage barns; loss about \$9500.

Patuxent, Md.—Julius Snowden's two stock barns.

Parkersburg, W. Va.—Graham-Bumgarner Company's shoe factory; loss \$30,000.

Prosperity, Mo.—United Zinc Co.'s Highland mill; loss \$40,000.

Renfroe, Ala.—Cotton gin owned by A. F. Jones, Talladega, Ala.

Richburg, S. C.—Farmers' Wholesale Grocery Co.'s building; loss \$10,000.

Richmond, Va.—Malvern Hall, residence of William H. Hall of New York.

Rising Sun, Md.—Milford Fox's dwelling; loss \$6000.

Savannah, Ga.—Floyd & Co.'s cotton pickery; loss about \$5000.

Sedalia, Mo.—John T. Collins Furniture Co.'s store building; loss about \$15,000.

Snyder, Okla.—Joe Morris' building and Stoffer Mercantile Co.'s warehouse; loss about \$13,000.

Somerton, Va.—Gates County Lumber Co.'s sawmill plant.

Timpson, Texas.—S. G. Childs' sawmill; estimated loss, \$5000.

Tiptonville, Tenn.—Caldwell Bros.' store building and Tiptonville Hardware Co.'s store; loss about \$30,000.

Trenton, S. C.—S. T. Hughes' cotton gin; estimated loss \$2000.

Troy, N. C.—Building owned by J. R. Blair and occupied by Saunders & Brown, D. B. Morgan and S. H. McCall.

Uniontown, Ky.—Davids Coal Mining Co.'s mine buildings; loss \$30,000.

Wilmington, N. C.—Shadeland Dairy's plant, owned by A. O. McEachern; loss about \$8000.

Uniontown, Ky.—River & Rail Coal & Coke Co.'s coal mines damaged; loss about \$10,000.

Wesson, Miss.—Burgess & Montgomery's sawmill and cotton gin; loss \$2500.

### DESTROYED BY LANDSLIDE.

Pine Bluff, Ark.—C. C. Brockway's residence and storehouses; loss about \$30,000.

Pine Bluff, Ark.—Jefferson county courthouse annex, loss about \$125,000, address County Commissioners; W. N. Turlock's storage buildings and ground, loss about \$30,000; S. Blumenthal & Co.'s warehouse, loss \$25,000; R. M. Knox Company's three warehouses, loss \$35,000; Berlin Bros.' two stables, loss \$15,000; American Excelsior Laundry Co.'s building, loss \$20,000; Charles Pruden's stable, loss \$3000; J. B. Avery & Son's stable, loss \$3000; Joe Krumpner's three stores and residences, loss \$20,000; Arkansas River Packet Co.'s warehouse.

### BUILDING NOTES APARTMENT-HOUSES

Birmingham, Ala.—A. F. McNeal will erect two-story brick flats; plans by D. O. Whildin, 711 Title Guarantee Bldg., Birmingham; hot-air heat; electric lighting; cost \$5000; construction by owner.

Chattanooga, Tenn.—J. Fred Ferger, 102 East 8th St., is having plans prepared by Chas. E. Bearden for remodeling of three-story building recently noted purchased; three-story brick addition will be erected, 60x45 feet, with composition roof; structure to contain 12 three-room and 6 four-room apartments; hard pine interior finish; 12 cabinet mantels with ornamental gas logs in fireplaces; hot-water heat; gas and electric lighting; plumbing; cost \$25,000; construction by owner. (See "Machinery Wanted.")

Norfolk, Va.—C. E. Hall awarded contract to J. D. Anders, 23 Essex Bldg., Norfolk, for erection of five brick apartment-houses; mill construction; size 75x93 feet; hot-air heating; gas and electric lighting; cost \$18,000; plans by Benj. F. Mitchell, Seaboard Bank Bldg., Norfolk. (Recently noted under "Dwellings.")

St. Louis, Mo.—William N. Horstman, 9th and Salisbury Sts., will erect two double apartment-houses at 4020 Palm street; recently mentioned; two stories; brick; 37 feet by 53 feet 6 inches; ordinary construction; gas lighting; estimated cost, \$13,332; plans by Mr. Horstman; contract awarded to Erdbruegger & Beumer, 2909 National Bridge Rd., St. Louis.

St. Louis, Mo.—H. Folkers purchased site 45x140 feet on which to erect double apartment-house.

St. Louis, Mo.—Ida Sadring purchased 50-foot site on which to erect apartment-house.

Washington, D. C.—Franklin T. Lanier will erect apartment-house at 1765 Lanier Pl. N. W.; brick; cost about \$30,000; plans by A. H. Beers, 1333 G St. N. W., Washington.



## BANK AND OFFICE BUILDINGS

Asheville, N. C.—J. R. Oates, 56 College St., is having plans prepared by R. S. Smith of Asheville for store and office building; four stories; concrete; fireproof construction; four stores on main floor and 27 offices on each of upper floors; vaults for papers will probably be provided on each floor. (Mr. Oates recently reported as contemplating erection of hotel.)

Brownwood, Texas.—R. B. Rogers will erect five-story office building.

Deland, Fla.—Volusia County Bank purchased site for \$7500 on which to erect bank and office building.

El Paso, Texas.—Chamber of Commerce will sign five-year lease for new building, recently mentioned; to be two stories and basement; Mission style; stone and brick; roof will be formed with rotunda skylight, and be supported by columns; first floor will contain auditorium, offices for Chamber of Commerce, etc.; second floor to have offices.

Garyville, Ga.—Gary State Bank will erect \$15,000 bank building; brick, stone and terra-cotta; plans by Crosby & Henkel, Morris Bldg., New Orleans, La.

Georgetown, Texas.—First National Bank purchased lot and building adjoining present property and will remodel structure; purchase and improvements to cost about \$10,000.

Holly Springs, Miss.—Merchants & Farmers' Bank will erect office building; two stories; brick.

Houston, Texas.—South Texas National Bank is having plans prepared by C. B. Hill & Co., Dallas, Texas, for bank building; two stories and basement; Grecian style; front of Georgia marble; cost about \$100,000.

Houston, Texas.—J. E. McAshan will erect bank and office building; probably six stories; steel and brick; elevator.

Nashville, Tenn.—Union Bank & Trust Co. will erect bank and office building; five or seven stories high; plans are being prepared.

Oklahoma, City, Okla.—F. M. Pirtle and G. W. Scales will erect four-story office building.

San Antonio, Texas.—P. H. Swearingen, Mrs. W. S. McCraw and Mrs. Winifred McCraw Swearingen will erect office building; 12 stories; steel and gray brick; terra-cotta trimmings; 107x63 feet; 240 offices; two elevators; cost about \$200,000; plans by Arlee B. Ayres, San Antonio.

## CHURCHES

Conway, Ark.—Conway Baptist Church will erect edifice to cost about \$20,000. Rev. J. J. Hurt is pastor.

Kansas City, Mo.—Ivanhoe Park Congregational Church will erect stone edifice to cost \$16,000. Address The Pastor, Ivanhoe Park Congregational Church.

Knoxville, Tenn.—Gillespie Avenue Baptist Church will probably open bids in February for erection of edifice recently mentioned; plans by M. E. Parmelee, Knoxville; structure 70x80 feet; hot-air heat; electric and gas lighting. (See "Machinery Wanted.")

Newton, Miss.—First Baptist Church will erect by day's labor edifice recently mentioned; work superintended by W. D. Still, Newton; fireproof cement structure; 68x80 feet; ordinary construction; hot-air heat; electric lighting; cost \$10,000; plans by P. J. Krouse, Meridian, Miss.; construction begun. (See "Machinery Wanted.")

Paintsville, Ky.—M. E. Church South, Dr. J. M. Skinner, secretary, has had plans prepared by J. R. Gleske, Ceredo, W. Va., for edifice recently mentioned; 60x97 feet; one story and basement; stone; slate roof; art glass; ordinary construction; hot-water heat; gas and electric fixtures; day work, under supervision of George W. Gray, C.E. (Recently mentioned.)

Parkersburg, W. Va.—First M. E. Church has had plans prepared by G. W. Kramer of New York for edifice; ashlar stone; natural gas and electricity; estimated cost, \$75,000; bids will be received until January 5, 1909; Rev. M. F. Compton is pastor.

Petal, Miss.—Presbyterian Church will erect edifice; contract awarded. Address The Pastor, Presbyterian congregation.

Raleigh, N. C.—Church of the Good Shepherd expects to resume work on its new edifice about March; to be of stone and cost about \$40,000; about two-thirds of the walls are completed; Dr. L. McK. Pittinger, rector.

Ruston, La.—Baptist congregation will erect edifice. Address The Pastor, Baptist Church.

## COURTHOUSES

Salisbury, N. C.—Rowan County Commissioners will build courthouse costing from \$75,000 to \$80,000; granite exterior; plans by

Frank P. Milburn & Co., Home Life Bldg., Washington, D. C.

Stanford, Ky.—Lincoln County Fiscal Court engaged Frank P. Milburn & Co., Home Life Bldg., Washington, D. C., to prepare plans and specifications for \$35,000 courthouse; plans to be ready and contract let in about six weeks.

Tallahassee, Fla.—E. B. Dyer (probably of Tallahassee) has contract at \$7284 to erect addition to Leon county courthouse; O. C. Parker prepared plans and will superintend construction; E. C. Smith, chairman Board of Commissioners. (Recently mentioned.)

Towson, Md.—Proposals for work and materials required for construction of additional wings and certain alterations to Baltimore county courthouse will be received at office of Baldwin & Pennington, architects, 330 North Charles St., Professional Bldg., Baltimore. Contractors to file applications for drawings and specifications on or before December 15. Such applicants will be notified after that date when drawings and specifications can be obtained. Special deposit of \$50 will be required for each set of plans and specifications secured. Proposals to be submitted within two weeks from date on which plans and specifications are issued from above office. Certified check for \$3000, payable to Frank I. Duncan, treasurer of building commission of Baltimore county courthouse. Plans call for erection of two wings, each two stories high, 50x56 feet, of fireproof construction; exterior walls of stone, with white marble trimmings; to conform in design to present building; to be equipped with steam-heating plant, wired for lighting and other purposes; \$50,000 appropriated.

## DWELLINGS

Anderson, S. C.—J. C. Nally will erect residence and storeroom.

Baltimore, Md.—August Weber, president of German Savings Bank of Baltimore City, Holliday and Baltimore Sts., awarded contract to Frank Novak of Novak & Hirt, 2806 Jefferson St., Baltimore, for erection of seven dwellings on Samuel Ready Pl.; brick; two stories; estimated cost, \$6000.

Baltimore, Md.—J. E. Franklin, Culver Ave., near Grindin La., will erect 20 dwellings on Bruce street; two stories; brick; 13x42 feet; sewerage connections; cost about \$20,000.

Baltimore, Md.—Brady Building Co. has had plans prepared by Jacob F. Gerwig, 210 East Lexington St., Baltimore, for four cottages in Walbrook; 30x38 feet; frame; stone foundations; electric lights; hardwood floors; slate roofs; steam heat; estimated cost \$25,000.

Baltimore, Md.—A. H. Slemon, 1009 Linden Ave., awarded contract to James F. Morgan, 1300 S. Charles St., Baltimore, for erection of residence on Liberty Heights avenue, Forest Park; two stories and attic; frame; cost about \$5000; plans by John Freund, Jr., 210 E. Lexington St., Baltimore.

Baltimore, Md.—Thomas Nelson, proprietor of Stafford Hotel, Charles St., near Madison St., will erect residence in Edgewood Park; site 50x200 feet.

Baltimore, Md.—Howard Realty Co. has had plans prepared by S. Russell, 2900 Clifton Ave., Baltimore, for 11 dwellings on Ninth street; 15x50 feet; cost about \$17,000.

Baltimore, Md.—William Smith and John T. Kelly have had plans prepared by C. H. Minor, 10 Bloomingdale Ave., Baltimore, for two dwellings on Poplar Grove avenue; two stories; cost \$5000.

Baltimore, Md.—Andrew Faulhaber, 1227 North Central Ave., will erect 11 dwellings on Mine Bank lane; two stories; brick; brick and cement foundations; 13x35 feet; cost about \$6000.

Birmingham, Ala.—Wm. Huey had plans prepared by Warren & Welton, Birmingham, for two-story frame residence at Mountain Terrace; ordinary construction; hot-air heat; electric lighting; cost \$4500; bids to be opened about December 15.

Birmingham, Ala.—Geo. M. Cruikshanks awarded contract to P. E. Bostick, Birmingham, for erection of proposed dwelling; two stories; frame; ordinary construction; hot-air heat; electric lighting; cost \$8100; plans by Warren & Welton, Birmingham.

Birmingham, Ala.—Birmingham Realty Co. will erect \$4000 dwelling; two stories and basement; ordinary construction; hot-air heat; electric lighting; plans by Miller & Martin, Birmingham; construction by owner.

Birmingham, Ala.—J. H. Parker will open bids about December 15 for erection of proposed residence; two stories; frame; hot-air heat; electric lighting; cost \$4500; plans by Warren & Welton, Birmingham.

Birmingham, Ala.—Jemison Real Estate Co. had plans prepared by Warren & Welton, Birmingham, for erection of two-story frame dwelling at Mountain Terrace; ordinary construction; hot-air heat; electric lighting; cost \$5500.

Bradentown, Fla.—D. N. Leonard will erect two-story double dwelling.

Buda, Texas.—W. N. Monroe will erect dwelling.

Buda, Texas.—F. A. Heep will erect residence.

Buford, Tenn.—A. M. Allen will erect six or eight-room residence to replace structure recently reported burned; plans not matured; architect not engaged; will not build until next spring.

Catonsville, Md.—Mrs. William Levering awarded contract to John A. Sheridan, Chase, Md., for erection of three dwellings on Edmondson avenue, Catonsville; two and a half stories; frame; slate roofs; spacious verandas; cost \$12,000.

Chattanooga, Tenn.—Carl White will expend from \$7000 to \$10,000 to erect residence on Lookout Mountain (suburb), recently noted; plans by Adams & Alsop, James Bldg., Chattanooga; structure 40x75 feet; frame, stucco and stone; hot-air, hot-water or vacuum heat; acetylene-gas lighting. (See "Machinery Wanted.")

Chattanooga, Md.—Miss N. Brent, 816 St. Paul St., Baltimore, Md., has had plans prepared by L. H. Fowler, The Winona, Baltimore, for residence at Chattanooga; two stories; 47x25 feet; frame; hardwood floors; cost about \$5000; contractors estimating include Brown & Morgan, Builders' Exchange; John Cowan, 106 West Madison St.; Willard E. Harn, 2700 Huntingdon Ave.; Gladfelter & Chambers, 2072 Woodberry Ave., all of Baltimore, and Israel Owings, Mt. Washington.

Dallas, Texas.—R. M. Williamson awarded contract to A. Watson, Dallas, for erection of residence; two stories; 10 rooms; frame; cost about \$10,000; plans by Hill & Co., Dallas.

Greenville, S. C.—J. Clarke Brawley will erect residence.

Gainesville, Ga.—J. O. Adams, 15½ Main St., awarded contract to F. M. Loden, Gainesville, for erection of dwelling recently noted; plans by contractor; nine-room, two-story structure; steam heat; electric lighting; cost \$2800.

Hendersonville, N. C.—T. Jackson Henderson is having plans prepared by Burnette B. Carter, Hendersonville, for 12-room residence, barns, stables, etc.; cost about \$8000.

Howard, Ga.—E. P. Frazier, Macon, Ga., will erect bungalow in Howard district; cost \$4000.

Independence, Mo.—Joel B. Mayes will erect residence.

Kansas City, Mo.—Thomas French will erect residence; brick veneer; cost \$2500.

Leesburg, Va.—Mrs. R. H. Lynn will erect residence.

Little Rock, Ark.—W. A. Plunkett will erect residence; two stories; frame; cost \$575.

Memphis, Tenn.—A. C. Floyd awarded contract to D. C. Armstrong, Memphis, for erection of residence; two stories; eight rooms; stone veneer; slate roof; cost, exclusive of heating, \$4600.

Mt. Washington, Md.—Frank H. Rudy of Frank H. Rudy & Co., Culvert Bldg., Baltimore, Md., will erect bungalow in Mt. Washington; one and a half stories; broad verandas; slate roof; hot-water heating; electric lighting; cost about \$6000.

New Orleans, La.—Albert Levy awarded contract to M. & V. Garsaud, New Orleans, at \$5500 for erection of residence; plans by P. F. Donnes, New Orleans.

New Orleans, La.—Mrs. John Wagner will erect residence; plans by M. Garsaud, 716 Maison Blanche, New Orleans; single two-story building of semi-fireproof construction; hot-air heat; cost \$9000.

New Orleans, La.—J. T. Kirn, contractor and builder, 3310 Cleveland St., will erect five-room double cottages to cost about \$35,000; plans by builder.

Norfolk, Va.—Isabella Anderson awarded contract to Deat & Totty, Norfolk, for erection of residence; two stories; frame; cost \$4600.

Norfolk, Va.—J. W. Truitt awarded contract to M. B. Jordan, Norfolk, for erection of six dwellings; frame; cost \$3900.

Norfolk, Va.—C. C. Waddell awarded contract to J. D. Anders, 23 Essex Bldg., Norfolk, for erection of residence; two stories; brick and frame; cost \$7000; mill construction; hot-air heating; gas and electric lighting; plans by Lee & Dhall, Norfolk.

Portsmouth, Va.—Geo. H. Carr, 301 Court

St., will erect two dwellings; 50x30 feet each; cost \$4000; ordinary construction; plans by owner; construction by day labor, superintended by W. H. Cates, Portsmouth. (See "Machinery Wanted.")

Richmond, Va.—Eva K. Melton will erect four detached frame dwellings, to cost \$8000.

San Angelo, Texas.—Fred Schmidt will erect dwelling; two stories; 22 rooms; brick. Shelby, N. C.—S. B. Tuner will erect cottage.

St. Louis, Mo.—Mississippi Valley Trust Co. will erect 12 dwellings and single flats.

St. Louis, Mo.—Henry Scheer will erect \$10,000 residence.

St. Louis, Mo.—Doerflinger Realty Co. will erect 100 dwellings in Chester Heights; one and a half stories; frame; four and five rooms; total cost about \$200,000.

Summerville, Ga.—Mrs. Mary G. McClintock, Pittsburg, Pa., will erect residence in Summerville, Ga.

Tampa, Fla.—W. E. Snavely will erect two-story residence in Hyde Park, to cost \$4000.

Tampa, Fla.—Celestino Vega awarded contract to Bates & Hudnall, Tampa, for erection of residence; cost \$12,000.

Tampa, Fla.—Peter O. Knight will not erect new residence. (Recently incorrectly reported.)

Washington, D. C.—Harry Kite and W. Chiswell will expend \$30,000 in erection of dwellings; contract recently noted awarded to E. T. Cresmond, 1343 East Capitol St., Washington; 10 box houses; six rooms; gas lighting; plans by A. Beers, 1333 G St. N. W. (Owner's name incorrect in recent notice.)

Washington, D. C.—Waddy B. Wood of Wood, Donh & Deming, 808 17th St. N. W., will erect dwelling on Q street N. W.; three stories and basement; 20x61 feet; Indiana limestone front or wainscot; tile roof; electric wiring; hot-air heat; hardwood flooring; leaded glass; contractors estimating include John Nolan, 1413 G St. N. W.; F. L. Wagner, 1413 H St. N. W.; John McGregor, 729 12th St. N. W.; C. A. Langley, 310 12th St. N. W.; Piper & Kenyon, 729 15th St. N. W.; H. V. Sanford, 1321 G St. N. W.; A. Getz & Son, 402 6th St. N. W.; W. P. Lipscomb & Co., 1405 F St. N. W.; Richardson & Burgess, 1413 H St. N. W.; W. S. Spencer, Bond Bldg., and Jas. L. Marshall, 614 13th St. N. W., all of Washington; owner is architect.

Washington, D. C.—H. C. Freltz has had plans prepared by W. J. Simmons, 1321 8 St. N. W., Washington, for 12 brick and frame dwellings at 300 to 320 16th street S. E.

Washington, D. C.—F. A. Norway awarded contract to M. L. Gotwals, 40 U St. N. W., Washington, for erection of five dwellings at 7th and F streets N. E.; two stories; red pressed brick; four to have frontage of 21 feet; wrought-iron railings will be used on porches; tile roofs; plans by Matthew G. Lepley, 467 H St. N. W.

Washington, D. C.—J. S. Scully, 418 12th St. N. W., recently noted to award contract to L. Eminent, Washington, for erection of residence on Massachusetts avenue N. W., will erect structure four stories high; English Renaissance style architecture; colonial brick, laid in white mortar; English basement; plans by J. Appleton Clark, Jr., 605 F St. N. W., Washington.

Winston-Salem, N. C.—Wm. M. Nissen will make alterations and additions to dwelling; new wing to be erected; electric and gas lighting; new roof, columns and inside woodwork; hot-water heat; plans by Willard C. Northrup, 208 Masonic Temple, Winston-Salem.

## GOVERNMENT AND STATE BUILDINGS

Carthage, Mo.—Postoffice.—Plans for U. S. postoffice to be erected at Carthage call for structure 70x100 feet; basement, one story and mezzanine floor; Carthage marble; fireproof construction; steam heat; electric (conduit) lighting; estimated cost, \$80,000; Dieter & Wenzel Construction Co., Joplin, Mo., has contract at \$78,770, as recently stated; James Knox Taylor, Supervising Architect, Treasury Department, Washington, D. C.

Columbia, Tenn.—Postoffice.—Columbia postoffice building, contract recently noted awarded to Geo. Moore & Sons, Nashville, Tenn., will be fireproof structure; stone and brick; 56x80 feet; hot-water heat; cost of building and fixtures, \$55,000; to be completed by December 31, 1909; plans by James Knox Taylor, Supervising Architect, Treasury Department, Washington, D. C.

Gainesville, Fla.—Postoffice.—Bids will be received at Treasury Department, office of James Knox Taylor, Supervising Architect,

struction (including plumbing, gas piping, heating apparatus, electric conduits and wiring). Washington, D. C., until January 11 for completion of United States postoffice at Gainesville, in accordance with drawing and specifications, copies of which may be obtained from custodian of site at Gainesville, at discretion of Supervising Architect. (See "Heating Apparatus" in "Machinery, etc., Wanted.")

Johnson City, Tenn.—Postoffice.—Proposals will be received at office of Jas. Knox Taylor, Supervising Architect, Washington, D. C., until January 7 for construction complete of U. S. postoffice at Johnson City; drawings and specifications obtainable from postmaster, Johnson City, at discretion of architect.

McManus, La.—Dormitory.—State Insane Asylum will erect dormitory near McManus; two-story-and-basement structure; reinforced concrete; low-pressure steam heat; acetylene-gas lighting; cost \$14,500; plans by Mackenzie & Biggs, New Orleans, La.

Mount Weather, R. D., from Blumont, Va. Building.—United States Department of Agriculture, office of the Secretary, Washington, D. C.—Sealed proposals will be received by Secretary of Agriculture until December 22 for completion of unfinished three-story-and-basement building for Weather Bureau, United States Department of Agriculture, at Mount Weather, in accordance with plans and specifications, which may be obtained at office of Chief of Weather Bureau, Washington, D. C., and at Weather Bureau Office, Mount Weather, Va. Bids addressed to Chief of Weather Bureau, Washington, D. C.; W. M. Hays, Acting Secretary.

Murfreesboro, Tenn.—Postoffice.—Bids will be received at office of James Knox Taylor, Supervising Architect, Treasury Department, Washington, D. C., until January 9 for construction (complete) of U. S. postoffice at Murfreesboro in accordance with drawings and specifications, copies of which may be had at above office or at office of postmaster at Murfreesboro, at discretion of Supervising Architect.

Terrell, Texas.—Asylum.—B. L. Gill, president board of directors, Terrell Insane Asylum, has been authorized to award contract for repairing damage done to woman's annex building by recent fire; expenditure estimated at \$15,000.

### HOTELS

Charlotte, N. C.—Stonewall Hotel Co. awarded contract to J. A. Jones, P. O. Box 811, Charlotte, at \$6000 to erect 20-room pressed-brick addition to Stonewall Hotel; contract provides for erection of two additional stories to lunchroom building in rear of hotel proper; annex will be connected by archway with main hotel and also with old residence of Mrs. Stonewall Jackson, which will also be used as part of hotel; ordinary construction; 41x50 feet; steam heat; electric lighting. Plans by Frank P. Milburn & Co., Henpe Life Bldg., Washington, D. C.

Dunn, N. C.—Mrs. E. F. Young, proprietor Young Hotel, will erect 20-room addition.

Hendersonville, N. C.—John L. Orr will erect 30-room hotel.

San Angelo, Texas.—R. S. Payne, Cincinnati, Ohio, will, it is reported, organize company for erection of five-story hotel and opera-house in San Angelo, to cost \$10,000.

San Antonio, Texas.—Odd Fellows will have plans prepared by Henry T. Phelps, San Antonio, for hotel and lodge building; seven stories; first six stories to be used for hotel purposes; upper floor for lodge; steel and brick; cost about \$90,000; Eugene Holmgren, Albert Meyer and others compose building committee.

Uvalde, Texas.—J. G. Smith will erect three-story hotel, to contain 52 rooms.

### MISCELLANEOUS STRUCTURES

Austin, Texas.—Elks' Home.—B. P. O. Elks will erect four-story home.

Baltimore, Md.—Garage.—Zell Motor Car Co., 1010 Morton St., has had plans prepared by Edward H. Glidden, Glenn Bldg., Baltimore, for garage on Mt. Royal avenue; three stories; 50x100 feet; ornamental facade of pressed brick with cut-stone or terra-cotta trimmings; plate-glass windows along entire front of first floor; fireproof construction; cost about \$50,000.

Fort Worth, Texas.—Store Building.—J. F. Moore will erect store building; two stories; 13 rooms; cost \$4000.

Greensboro, N. C.—Greenhouses.—J. Van Lindley Nursery Co. will erect four additional greenhouses.

Hagerstown, Md.—Hospital.—Edward W. Mealey, representing hospital trustees, has purchased site, containing about 70 acres, and will erect one-story hospital buildings to cost about \$83,000.

Houston, Texas.—Business Building.—Conrad Schwartz has had plans prepared by R. D. Steel, Houston, for business building; four stories; brick; cost \$28,500.

Houston, Texas.—Clubhouse.—Houston Country Club is having plans prepared by Sanguinette & Staats, Houston, for clubhouse; combination Old English and bungalow style; semi-rustic.

Huntington, W. Va.—Elks' Home.—Lodge No. 113, B. P. O. Elks, awarded contract to A. N. Withrow Company, Charleston, W. Va., at \$22,350 for erection of proposed lodge building; ordinary construction; stone and brick; steam heat; electric lights; plans by Smith Bros., Huntington.

Independence, Mo.—Home.—Jackson county rejected all bids for completion of construction of county home at Independence; new bids will be asked; following contracts have been awarded: Kansas City Steam & Hot-Water Heating Co., Kansas City, Mo., at \$25,404 for heating; Allison-Hudson Plumbing Co., 1015 Holmes St., Kansas City, Mo., at \$12,068 for plumbing; E. H. Norwood, Kansas City, Mo., at \$6269 for wiring; Western Electric Co., Hawthorn, Chicago, Ill., at \$4620 for engines. Address County Commissioners.

Kansas City, Mo.—Frank Lester will erect brick business building; cost \$3000.

Knoxville, Tenn.—Garage.—Chas. McNabb will erect automobile garage; reinforced concrete and brick; 40x150 feet; cost about \$7000; plans by Geo. Dupes, Knoxville.

Lecompte, La.—Store.—E. N. Wiley, Jr., owner, will erect \$3000 hardware store building; 30x30 feet; frame; cement floor; galvanized steel roof. (See "Machinery, etc., Wanted.")

Lockhart, Texas.—Fire Station and Opera-house.—Lockhart Fire Department, E. B. Coopwood, chief, will erect fire station and opera-house.

Mena, Ark.—Business Building.—Joseph Robert will erect business building; two stories; concrete and pressed brick; site 25x110 feet.

Mobile, Ala.—Asylum.—Bids will be opened December 15 for erection of asylum for poor of Mobile county, and specifications on file at office of Benz & Sons, architects, 211-214 Masonic Temple Bldg., Mobile; John T. Bauer, president Board of Revenue and Road Commissioners.

Mobile, Ala.—Merchants' Grocery Co. awarded contract to Jett Bros. Contracting Co., Mobile, for erection of store building to replace structure reported in October as destroyed by fire.

Norfolk, Va.—Store and Dwelling.—N. B. Joynes awarded contract to J. H. Pierce, Norfolk, for erection of store and dwelling; two stories; brick; cost \$5000.

San Angelo, Texas.—Business Building.—Fred Schmidt will erect five-story brick business building.

Spartanburg, S. C.—Store Buildings.—J. T. Harris will erect two store buildings; two stories; plate-glass show windows; pressed-brick fronts.

Spartanburg, S. C.—J. T. Harris will erect business building; two stories; brick with plate glass and pressed-brick front. (Recently mentioned.)

St. Elmo, Tenn.—Stores, etc.—William Younger, 906 Main St., awarded contract to LeCroix & Langford, Alton, Park, Tenn., to erect \$2500 building; two-story; brick; composition roof; two storerooms on first floor; two apartments above; hard pine interior finish; cement wood-fiber plaster; electric lighting; construction commenced.

St. Louis, Mo.—Stable.—South St. Louis Undertaking & Livery Co. will erect stable; two stories; cost \$10,000.

Strawn, Texas.—Business Building.—John Crouch contemplates erection of brick business building.

Strawn, Texas.—Store Building.—J. G. Watson will erect store building; frontage 50 feet; brick.

Thomasville, N. C.—Store Building.—Thos. J. Finch will erect store building; 25x50 feet; two stories; brick.

Thorndale, Texas.—Store Building.—Newton & Strauss awarded contract to Evans & Lee, Taylor, Texas, for erection of store building; brick; 38x120 feet.

Tyler, Texas.—Store Building.—J. L. Yarbrough awarded contract to O. Holstein, Tyler, for erection of store building.

Tulsa, Okla.—Business Building.—R. K. Parkhurst, Fairfield, Ill., will erect business building; two stories; brick and stone; 90x90 feet; cost \$18,000.

Washington, D. C.—Store Building.—O. J. DeMoll & Co., 1227-1233 G St. N. W., have had plans prepared by B. Stanley Simmons,

931 F St. N. W., for store building at 12th and G streets N. W.; four stories; brick and stone; combination electric passenger and freight elevator; 70 feet of window space on two streets; offices on main floor finished in mahogany.

Winston-Salem, N. C.—Store Building.—E. W. O'Hanlon will make improvements to store building; new front, etc.; plans by Willard C. Northup, 208 Masonic Temple, Winston-Salem; contract not let; work to begin soon.

Winston-Salem, N. C.—Store Building.—R. J. Reynolds will erect department-store building; three stories and basement; mill construction; pressed brick; stone trimmings; gravel roof; metal ceiling; electric elevator; gas and electric lighting; steam heat; plans by Willard C. Northup, 208 Masonic Temple; contract let; construction in early spring.

Winston-Salem, N. C.—Store Building.—Benbow & Hall will erect two-story store building.

Tampa, Fla.—Store Building.—L. L. Taylor awarded contract to J. C. Herad & Co., Tampa, for erection of store building; stone and brick foundation; corrugated iron; cost \$5000.

### MUNICIPAL BUILDINGS

Ada, Okla.—City Hall.—City will erect City Hall to cost about \$15,000. Address The Mayor. (See "Water-works.")

Alexandria, La.—City Hall.—City will open bids December 28 for erection of City Hall to cost \$60,000. George R. Mann, Little Rock, Ark., prepared plans. (Recently mentioned.)

Baltimore, Md.—Library.—City will erect Enoch Pratt Free Library branch at Gorsuch avenue and Taylor street, Waverly; site, 90x90 feet; building of buff brick, with dark stone trimmings; \$500,000 available for erection of branch libraries. Edward A. Preston, Building Inspector, City Hall.

Baltimore, Md.—Engine-house.—City purchased properties at 316-320 South Caroline street on which to erect fire-engine house; \$30,000 appropriated; Edward M. Parrish, president Board of Fire Commissioners.

Bamberg, S. C.—City Hall.—City will open bids December 30 for erection of \$10,000 city hall recently mentioned; plans by C. Gadsden Sayre & Co., Anderson, S. C.; three-story structure; 30x100 feet; storeroom on first floor; city hall on second; rooms above; hot-air heat; electric lighting.

Greensboro, N. C.—Building.—Greensboro Water Commission will erect brick building for offices and storage rooms for water and light commission.

Greenwood, S. C.—City Hall.—Bids will be received until December 18 for erection of City Hall. Plans and specifications at office of W. G. Calhoun, City Clerk, or of Cothran & Cothran, Masonic Temple, Greenwood. Kenneth Baker, Mayor.

Knoxville, Tenn.—Fire Hall.—City accepted plans of Baumann Bros., Henson Bldg., Knoxville, for erection of fire hall recently mentioned; ordinary brick structure; two stories; 50½x62 feet; bids to be opened December 14; \$8000 appropriated; will install steamer engine, combination wagon, etc. City is also asking bids, to be filed on same date, for building addition to old hall at Central Market; details not yet announced. W. H. Stapleton, Clerk Board of Public Works.

Monroe, La.—City Hall.—City will erect City Hall to cost about \$100,000. Address The Mayor.

Oklahoma City, Okla.—Quarantine Station. Plans by Hawk & Schmitt of Oklahoma City have been adopted for quarantine station, to cost about \$10,000; will consist of three buildings, each to be one story, on cottage plan; heat to be supplied from water plant; Henry M. Scales, Mayor. (Recently mentioned.)

Richmond, Va.—Armory.—John T. Wilson of Richmond has contract at \$93,881 to erect armory and market building combined; non-fireproof construction; to be of red brick, rusticated, trimmed with Indiana limestone, with provision for glass inclosure of market in winter; basement floor to be used as vegetable market; top floor to have drill hall, 164x100 feet; second floor, library, gymnasium, etc.; ride range on mezzanine floor over market. Frank L. Averill, Union Trust Bldg., and Arthur W. Hall, 1343 Girard St. N. W., Washington, D. C., prepared plans. (Recently mentioned.)

Shawnee, Okla.—Convention Hall and Hospital.—City will vote on issuance of \$50,000 of bonds for convention hall and \$20,000 of bonds for hospital. Address The Mayor.

Vinita, Okla.—Auditorium.—City will vote on issuance of \$9000 of bonds to purchase auditorium property. Address The Mayor.

### RAILWAY STATIONS

Clinton, Miss.—Alabama & Vicksburg Railway (Queen and Crescent Route) will erect depot at Clinton; construction has begun under supervision of E. L. Loftin, superintendent bridges and buildings, Vicksburg, Miss.

Durant, Miss.—Illinois Central Railroad, A. S. Baldwin, chief engineer, Chicago, Ill., will erect brick depot at cost of \$30,000 to replace burned structure.

New Orleans, La.—City and Texas & Pacific Railway, L. S. Thorne, general manager, Dallas, Texas, have practically agreed upon a plan for erection of proposed union depot in New Orleans. It is proposed that railroad company erect building, which is to revert to city, cost to be paid in rentals. Reported cost about \$300,000. Mr. Behrman is Mayor.

Princeton, W. Va.—Virginian Railway, H. Fermatrom, chief engineer, Norfolk, Va., will erect depot; two stories; 57x100 feet.

### SCHOOLS

Ardmore, Okla.—City will vote on \$30,000 bond issue for erection of school building and street improvements. Address The Mayor.

Ashburn, Ga.—City will vote on bond issue for school, water and light improvements. Address The Mayor.

Bartlesville, Okla.—City contemplates erection of school buildings; \$40,000 of bonds have been voted to purchase sites. Address The Mayor.

Catonsville, Station Baltimore, Md.—Baltimore county will erect \$40,000 high-school building on Frederick avenue near Bloomsbury avenue, Catonsville. Address County Commissioners, Towson, Md.

College Station, Texas.—Agricultural and Mechanical College is having plans prepared by F. E. Gleske, college architect, for building to be occupied by officers and departments of experiment-station work; two stories and basement; 60x110 feet; cost about \$40,000.

Covington, Ga.—City awarded contract to C. A. Clark, Covington, for erection of public-school annex; cost about \$7000.

Daytona, Fla.—Daytona School Board, Wm. Jackson, secretary, will receive preliminary plans until December 23 for \$40,000 high-school building. (Previously mentioned.)

Holdenville, Okla.—Board of Education, School District No. 35, Holdenville, will erect school building; about 9 or 10 rooms; ordinary brick construction; electric lights; cost about \$22,000; recently mentioned. (See "Machinery Wanted.")

Jonesville, S. C.—City will erect \$4000 addition to school building; J. J. Littlejohn, member Board of Trustees. (\$4000 bond issue recently noted.)

Kingston, Okla.—City will vote December 19 on \$25,000 bond issue for erection of school building. Address The Mayor.

Langston, Okla.—Board of Regents, Oklahoma State Normal School, Guthrie, Okla., awarded contract to Texas Building Co., Fort Worth, Texas, for erection of main building at Colored Agricultural and Normal Institute at Langston; fireproof; cost \$65,000; plans by C. Sudhoelter & Co., Muskogee, Okla. (Recently mentioned.)

Midland, Texas.—Texas Christian University, Clinton Lockhart, president, North Waco, Texas, will establish branch college in Midland; suitable building will be erected on site of 225 acres; to be known as Midland College.

Norfolk, Va.—City awarded contract to John W. Jones, Norfolk, for erection of proposed Berkley ward school No. 2; brick; cost \$19,000; plans by Taylor & Hepburn, Norfolk.

Ramona, Okla.—School Board of School District No. 16, Washington county, will open bids December 22 for erection and completion of high-school building at Ramona; separate bids for plumbing and heating; certified checks for \$3000 to accompany each bid for general contract, and for \$1000 with each bid for plumbing and heating; plans and specifications on file at offices of secretary of School Board, Ramona, or of Layton & Smith, architects, Oklahoma City, Okla., or copies can be had from architects on application; E. E. Heyl, director.

San Marcos, Texas.—Coronal Institute will, it is reported, expend \$100,000 for erection of new buildings and additions.

St. Martinsville, La.—St. Martinsville parish is considering erection of school building to cost \$25,000. Address Parish Commissioners.

Texarkana, Texas.—City will vote December 12 on \$134,000 bond issue for school, street and other improvements. Address The Mayor.



Tulsa, Okla.—City has voted \$125,000 of bonds for erection of three school buildings recently mentioned; eight rooms; reinforced concrete; fireproof; steam heat; gas and electric lights; I. P. Buck, Tulsa, contractor; J. J. Glandfield, Tulsa, architect.

Walterboro, S. C.—City will probably vote on \$25,000 bond issue for erection of school building and completing water-works. Address The Mayor.

Winnfield, La.—Board of School Directors, Winn parish, will open bids December 15 for erection of school building; 140x70 feet; fireproofed on all floors and ceilings throughout; exterior finished in cement and stucco; all partitions and stairs will be fireproofed; separate bids for electric wiring, plumbing and heating; certified check for 10 per cent. amount of bid, payable to J. J. Mixon, superintendent of schools, Winnfield; plans and specifications on file at offices of L. L. Thurman, architect, Ruston, La., and of J. J. Mixon, superintendent, Winnfield. (Mentioned in October. See "Heating Apparatus" in "Machinery Wanted.")

## THEATERS

Baltimore, Md.—George Kline & Son have had plans prepared by Jacob F. Gerwig, 210 East Lexington St., Baltimore, for moving-picture theater at 1741 East Baltimore St.; one story; brick; 23x75 feet; slag roof; steam heat; cost \$4000.

Cleveland, Okla.—Cleveland Lodge No. 37, Knights of Pythias, awarded contract to A. F. Greenfield, Cleveland, for erection of opera house and castle hall; recently mentioned; 22x80 feet; seating capacity, 600 people; brick and concrete; gas heating and lighting; cost \$8000; plans by Fred. Ule, Pawnee, Okla.

Lockhart, Texas.—Lockhart Fire Department, E. B. Coopwood, chief, will erect fire station and opera-house.

San Angelo, Texas.—R. S. Payne, Cincinnati, Ohio, will, it is reported, erect opera house and hotel in San Angelo. (See "Hotels.")

Sour Lake, Texas.—Port Arthur Opera-House Co., Horace L. Rodgers, manager, Port Arthur, Texas, will erect opera-house at Sour Lake; 50x80 feet; hardwood flooring.

## WAREHOUSES

Chattanooga, Tenn.—Chattanooga Builders' Supply Co. awarded contract to Adams & Schneider, 120 East 8th St., Chattanooga, for erection of \$3000 warehouse previously mentioned; two stories; frame; composition roof; 50x114 feet; mill construction; contract for building trestle to be awarded soon.

Dyersburg, Tenn.—J. M. Brackin will erect warehouse for Hall Concrete Co.; company will install machine to manufacture concrete blocks.

Houston, Texas.—Erie City Iron Works, Erie, Pa., awarded contract to C. C. Wenzel of Houston for erection of warehouse; frontage 100 feet; depth 25 feet; height 16 feet; brick and concrete construction; cost \$18,000. H. A. Paine is local representative of company. (Recently mentioned.)

Knoxville, Tenn.—Chandler & Co. has no plans at present for erection of warehouse and store building recently mentioned.

Marianna, Ark.—Merchants' Cotton Co. will next May rebuild on larger lot cotton warehouse of Mixon-McClintock Company recently reported burned; estimated cost \$5000.

## RAILROAD CONSTRUCTION

### RAILWAYS

Augusta, Ga.—President A. B. Andrews of the Augusta Southern Railroad is quoted as saying that revision of grades and curves may begin before long. This is a Southern Railway line, and W. H. Wells of Washington, D. C., is engineer of construction.

Baltimore, Md.—The City Engineer has submitted his plans for eliminating grade crossings on the Baltimore & Ohio Railroad in the southern part of the city, and an ordinance will be prepared accordingly. The plans require a change of line for a mile or more and the building of overhead highway crossings. D. D. Carothers is chief engineer of the Baltimore & Ohio Railroad at Baltimore.

Beaver, Okla.—J. M. Kerns of Sunset, Okla., general manager of the Beaver Valley & Northwestern Railway, is reported as saying that the construction contract for building the proposed line from Gage, via Beaver City, to Hooker, Okla., 104 miles, has been let to T. E. Luttgerding, Turner Bldg., Wichita, Kans.; H. A. Perkins is chief engineer at Beaver, Okla.

Clay, W. Va.—Official.—The Buffalo Creek & Gauley Railroad, which has a line from Dundon via Camden-on-Gauley to Cresmont, W. Va., nine and one-half miles, contemplates building an extension from Cresmont to Huttonville, W. Va., 99 miles. J. G. Bradley is superintendent at Clay.

Covington, La.—Reported that grading is done on the New Orleans Great Northern Railroad to a point within five miles of Selgers Switch, near Jackson, Miss., and that it will be completed for operation to that city by January 15.

Dallas, Texas.—After a conference at Chicago on the proposed Union Depot for Dallas, W. C. Connor, president of the Dallas Terminal Railway & Union Depot Co., is quoted as saying that the new station is assured and it will cost, complete, including terminal tracks, not less than \$1,500,000, and probably as much as \$2,250,000. The lines interested are the Santa Fe, the Rock Island, the Cotton Belt, the Missouri, Kansas & Texas, the Colorado and Southern and the Trinity & Brazos Valley. Early action on the plans is expected by President Connor.

Dalton, Ga.—An officer of the Louisville & Nashville Railroad, in a letter to the Manufacturers' Record, denies the press report that the company contemplates building a branch line from Attalla, Ala., to Dalton.

DeKalb, Miss.—Mr. Sam O. Bell, president of the Bank of DeKalb, advises the Manufacturers' Record that actual construction has begun on the Sandoz Valley Railroad, of which he is president. O. C. Grigsby is the contractor, and he has graded about two miles of the line, which will be altogether about 12 miles long, from DeKalb to Sugar-nochee, on the Mobile & Ohio Railroad.

Diboll, Texas.—An officer of the Texas Southeastern Railroad advises the Manufacturers' Record that surveys have been completed and part of the right of way secured for the proposed extension to Crockett, Texas. J. E. Mitchell of Diboll, Texas, is chief engineer.

Dodge, Texas.—Reported that A. C. Ford of Fort Worth, Texas, of the Ford & Isbell Lumber Co. and of the Thompson-Ford Lumber Co., has bought control of the Trinity Valley Railroad, whose line is from Dodge, Texas, on the International & Great Northern Railroad, to Oakhurst, Texas, seven miles. Improvements may be made.

Durant, Okla.—W. S. Sterrett of Durant, Okla., and L. S. Powers of Louisville, Ky., are reported interested in a proposed lumber railroad from Durant to the Red River.

Douglas, Ga.—M. M. Elkan of Macon, Ga., is reported to have the general contract on the Georgia & Florida Railway between Hazlehurst and Vidalia, Ga., 20 miles, some of which is already sublet.

Elberton, Ga.—The Elberton Southern Railroad Co. has been chartered to take over the Elberton Air Line, lately sold at foreclosure. This is a Southern Railway Co. enterprise, and the incorporators are A. B. Andrews, vice-president of the Southern Railway at Raleigh, N. C.; J. S. B. Thompson, assistant to the president at Atlanta, Ga.; Hamilton McWhorter of Athens, Ga., and Sanders McDaniel. The company proposes to issue \$250,000 of bonds and \$200,000 of stock. Improvements may be made. W. H. Wells is engineer of construction of the Southern Railway at Washington, D. C.

Ellisville, Miss.—Mulford Parker, president of the Ellisville Lumber Co. and the Kola Lumber Co., it is reported, is having survey made for a standard-gauge railroad from Ellisville to Kola, Miss., which will be completed within 60 days, and later will be extended to Shubuta, Miss.

Hodgenville, Ky.—The Manufacturers' Record is informed that there is nothing definite in regard to the reported plan of local capitalists to have the Ohio Valley Construction Co. build an electric railway from Hodgenville to Burkesville via Columbia.

Fort Worth, Texas.—Contract is reported signed between Charles B. Duffy of St. Louis and Stuart Harrison and R. H. McNatt of the Fort Worth Board of Trade for the building of an interurban electric railway by Colonel Duffy from Fort Worth via Springtown to Mineral Wells, Texas, about 62 miles, provided that the three counties traversed subscribe for \$300,000 of stock, the total being \$1,400,000. Subscriptions are to be paid when the road is completed.

Graham, Texas.—An official of the Rock Island system writes the Manufacturers' Record that only a preliminary survey is being made for the proposed line from Graham to Stamford, about 75 miles. It is not definitely decided that it will be constructed.

Lumberton, N. C.—F. F. Wetmore of Lumberton, it is reported, contemplates building a railroad about six and one-half miles long.

McCreanor, Ark.—C. P. Harnwell of Little Rock, one of the incorporators of the Metro Valley Railway Co., recently chartered, is reported as saying that construction will soon begin. The line is to be 16 miles long from McCreanor south into timber lands. It may finally be extended to Pine Bluff.

McMinnville, Tenn.—F. H. Yost, it is reported, has been appointed trustee and general manager for the Great Falls River & Power Co., which proposes to build an electric railway from Nashville to Chattanooga, Tenn.

Newport, Tenn.—The Pigeon River Lumber Co. of Mount Sterling is reported to be asking bids for building a four-mile railroad extension.

Ocala, Ga.—The Ocala Southern Railway has been granted a charter to build a line about 30 miles long from Ocala to Nashville, Ga. The incorporators are J. A. J. Henderson, Reason Henderson, William Henderson, R. L. Henderson, R. V. Paulk, J. D. Paulk, J. L. Paulk, M. J. Paulk, W. N. Smith and H. J. Quincey of Ocala, Ga.

Parkin, Ark.—The Helena, Parkin & Northern Railroad Co. has been chartered to build a line about 50 miles long from Whitmore, on the Rock Island line, to Marked Tree, Ark., on the Frisco; capital, \$250,000, of which \$100,000 are subscribed. The incorporators are T. E. Hare, T. S. Hare, D. S. Watrous, G. Casey and J. L. Hare of Parkin, Ark.; A. C. Stebbins, H. L. Thompson, E. F. Cooley and E. W. Sparrow of Lansing, Mich.

Raceland, La.—An officer of the Franklin & Abbeville Railway is reported as saying that an extension is proposed from David Junction north to Youngsville, 15 miles, and also from Franklin & Abbeville Junction south to Franklin, six miles. Jules Godchaux is secretary and general manager at Raceland.

Pecos, Texas.—Reported that arrangements have been made with local people for the construction of the proposed Pecos & Balmorhea Railroad, planned some time ago by M. L. Swernhart of Chicago and others.

Piedmont, W. Va.—The Potomac Valley Railway Co., which is building an electric line connecting Piedmont and Keyser, W. Va., and Bloomington, Md., is reported to have begun tracklaying in Piedmont.

Rocky Mount, N. C.—The Tar River Lumber Co., which has a railroad about 10 or 12 miles long from Rocky Mount toward Hilliardston, 22 miles, will, it is reported, extend the road, which may be connected with the Seaboard Air Line at or near Norlina.

Ruston, La.—J. R. Swanson, vice-president of the United Lumber Co. of Quitman, La., is reported as saying that the company will remove to Ruston and will build a standard-gauge railroad from Ruston south through Lincoln and Jackson parishes, via Vernon, to probably connect with the St. Louis, Iron Mountain & Southern Railroad of the Missouri Pacific system, or with the spur which is being built from Clarks, La., to a point about 12 miles south of Vernon by the Louisiana Central Lumber Co. of Clarks.

San Antonio, Texas.—Sam Robertson, chief engineer of the San Antonio & Rio Grande Railroad, is quoted in a report from Brownsville, Texas, as saying that survey has been made as far as the crossing of the Texas-Mexican Railway.

San Antonio, Texas.—Von Bloemen Waanders and D. P. Wiedemann of The Hague, Holland, are reported to represent a Dutch syndicate to investigate the proposed Port O'Connor, Rio Grande & Northern Railroad, in which Michael Goggan of San Antonio, W. I. Allen of Victoria, Texas, and others are interested. W. S. Hipp of Houston, Texas, a contractor, is also said to be concerned. About 40 miles have been graded on the line, and financial arrangements may be made to complete it.

San Antonio, Texas.—William Bradburn, chief engineer for the Artesian Belt Railroad of Dr. C. F. Simmons, is reported as saying that the grade is nearly completed from Macdona, on the Southern Pacific Railway, to Kirk, on the International and Great Northern, and work will soon be under way from Kirk south to Senior, 15 miles more.

Shreveport, La.—The Louisiana & Arkansas Railway is reported to have closed negotiations for terminals for a line which will be built from Minden, La., to Shreveport, and survey is being made. The Frisco lines are said to be interested. Wm. Buchanan, president of the L. & A., and F. H. Drake of Minden, La., are said to have represented the company in the deal. Survey for the line is said to be under way, and construction will begin in a few weeks.

Spartanburg, S. C.—Twigg & Son of Augusta, Ga., have, it is reported, taken a subcontract on the line of the Carolina, Clinchfield & Ohio Railway near Mount Zion.

Spring Hope, N. C.—Reported that J. C. Dixon & Co. of Durham, N. C., are the contractors on the standard-gauge line which the Montgomery Lumber Co. is building from Spring Hope toward Bunn and Louisville, N. C., 16 miles. It was previously reported that the company will build only 12 miles.

Stamford, Texas.—L. M. Buie, president of the Stamford & Northwestern Railway Co., which proposes to build a line from Stamford via Aspermont to Dickens City, Texas, is quoted as saying that the company is ready to proceed with construction as soon as rights of way and suitable bonuses can be secured. S. M. Swenson & Sons, who are interested in the Spur Ranch, are also said to be connected with the railroad project.

St. Louis, Mo.—The St. Louis & San Francisco Railroad Co. is reported to have completed financial arrangements in New York to make improvements and extensions. J. F. Hinkley is chief engineer at St. Louis.

St. Louis, Mo.—The Cairo & St. Louis Railway Co. is reported to have filed a mortgage securing \$250,000 of bonds for the construction of its proposed interurban electric railway from Cairo, Ill., to St. Louis, Mo. W. B. McKinley of Champaign, Ill., is president.

Temple, Texas.—The Gulf, Colorado & Santa Fe Railway is reported to have begun survey at Temple for its proposed freight yard and terminals. Construction will, it is said, begin within 30 days and the entire cost, including buildings, will be about \$425,000. C. F. W. Felt is chief engineer at Galveston, Texas.

Tulsa, Okla.—The Western Transportation Co. of St. Paul, Minn., it is reported, will apply to the City Council for a franchise through Tulsa for an interurban electric railway, which will connect with a similar line from Oklahoma City. The latter will be via Chandler, Okmulgee and the Glenn Pool oil fields. A branch will run from Red Fork to Sapulpa. J. Robert Burnham made a survey some time ago. W. H. Brummet represents the company.

Tulsa, Okla.—Construction is reported progressing rapidly on an interurban railway from Miami, via the Ottawa county mining region, to Lincolnville, 10 miles.

Tupelo, Miss.—V. C. Kincannon is reported to be promoting the Tupelo, Pontotoc, Toccoola & Fulton Electric Railway.

Wheeling, W. Va.—The Baltimore & Ohio Railroad, it is reported, is making survey for a line from Morgantown, W. Va., to Wheeling, along the line of the southern boundary of Pennsylvania. It would be about 60 miles long. D. D. Carothers is chief engineer at Baltimore, Md.

Winnfield, La.—The grading is reported done on the five-mile railroad of the Southern Mineral & Development Co. from Winnfield to a marble quarry, the rails are on the way, and tracklaying is to begin soon. S. H. Houston of New Orleans is engineer.

## STREET RAILWAYS

Galveston, Texas.—A franchise has been granted to the Galveston Electric Railway Co. to build its proposed extensions.

Goldsboro, N. C.—Tracklaying has begun on the Goldsboro Street Railway from the Union Station to West Center street along Walnut street, to connect with track already begun at East Goldsboro and Revilo Park.

Johnson City, Tenn.—The Johnson City Traction Co. is building a suburban extension about one mile long.

Little Rock, Ark.—The Little Rock Railways & Electric Co. will, it is reported, build additional double track. D. A. Hegarty is general manager.

Montgomery, Ala.—The Montgomery Traction Co. has been granted authority by the City Council to make the proposed changes in its tracks.

## OIL FUEL IN GOVERNMENT DREDGES.

The U. S. Army has placed in commission the second of the two gigantic hydraulic dredges required for service in the Gulf of Mexico. A noticeable feature of both these ships (Gen. C. B. Comstock and Galveston) is the fuel. Oil is used as the only fuel, the engine equipment being furnished by Tate, Jones & Co., Inc., Empire Bldg., Pittsburg, Pa., makers of the Kirkwood burners. The Galveston is of 3000 indicated horse-power capacity, four boilers being required. It was built after a thorough test of the Comstock, constructed some six years ago, and also equipped entirely by Tate, Jones & Co. The advantages found by the Government are economy in fuel cost, labor, space and time, greater mileage, lightness and perfect control over the fire.

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

**Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.**

**Air Compressor.**—Lee Brothers, Memphis, Tenn., wants steam-driven air compressor, Cross compound standard; capacity about 1200 cubic feet per minute; Corliss valve attachment preferred.

**Alcohol Machinery.**—Horace Wiltbank, Buckeystown, Md., wants names of manufacturers of apparatus for making denatured alcohol.

**Alfalfa-mill Machinery.**—W. G. Wadley, 1524 Fairfield Ave., Shreveport, La., wants to correspond with manufacturers of hay and feed grinding machinery for alfalfa mill.

**Amusement-park Machinery.**—Standard Well Water Co., Mineral Wells, Texas, wants machinery, including electric fixtures, for improvements to amusement park; pavilion to be remodeled, etc.

**Art Glass.**—M. E. Parmelee, Knoxville, Tenn., wants prices on art glass.

**Boat.**—John G. Foster, Des Arc, Ark., wants boat; stern-wheel rig; four-foot draught; 120 feet over all; model hull; speed 10 to 12 miles in still water; will build oak hull on White River, Arkansas.

**Bells.**—Fayetteville Fire Co., Box 297, Fayetteville, N. C., wants bids on fire bells. (See "Steel Tower, etc.")

**Belt Fasteners.**—J. H. Sumner, Milwaukee, Wis., wants to buy hooks to connect wire-ropes belt.

**Belting.**—C. A. Beinkampen, Radford, Va., wants prices on belting.

**Boiler.**—M. Mathewson, manager Houston & Alvin Creamery Co., 1805 Congress St., Houston, Texas, wants 12-horse-power boiler for Lagrange (Texas) delivery.

**Boiler.**—Wesson Light & Power Co., Wesson, Miss., wants to buy 50-horse-power internally-fired boiler; second-hand; good for 100 pounds of steam.

**Boilers.**—M. C. Winston, Lizzie Cotton Mills, Selma, N. C., wants two high-pressure boilers of 125-horse-power each.

**Boilers.**—J. W. Brock, Honea Path, S. C., wants two 80-horse-power high-pressure boilers; 150 pounds pressure; return tubular or other good make; delivered Eastman, Ga.

**Boilers.**—See "Electric-light Plant."

**Boilers.**—W. J. Harvey & Co., Box 367, Cincinnati, Ohio, want prices on two 300-horse-power boilers. (See "Railway Equipment and Supplies.")

**Brick.**—F. P. Helfner, Atlanta, Ga., wants prices on brick.

**Bridge Construction.**—Bids will be received until December 17 for construction of iron bridge across Smith River at Satterfield Ford site, near Martinsville, Va.; plans and specifications at office of J. R. Gregory, City Engineer, Martinsville, Va. Address Mr. Gregory.

**Bridge Construction.**—See "Viaduct Construction."

**Bridge Construction.**—W. Frank West, Supervisor, will receive bids until December 15 for building Arthur and Island Creek bridges; proposals to be on both wood and steel structures; plans made known on day of letting; S. M. Bagwell, clerk.

**Briquette Machinery.**—F. P. Brown, Big Run, Pa., wants to correspond with manufacturers of and dealers in bituminous-coal briquette machinery.

**Building Materials, etc.**—McLaughlin, Pettit & Johnson, Masonic Bldg., Danville, Va., want catalogues, prices and samples of all kinds of building materials of interest to architects.

**Cars.**—Joseph E. Bowen, Box 777, Norfolk, Va., wants ten 36-inch gauge logging cars. State where can be seen.

**Cars.**—Jos. E. Bowen, 901 Bank of Commerce Bldg., Norfolk, Va., wants eight 42-inch-gauge logging cars, second-hand; Norfolk delivery.

**Cars.**—W. J. Harvey & Co., Box 367, Cincinnati, Ohio, want proposals on six interurban passenger cars, four closed interurban freight cars and six open freight cars. (See "Railway Equipment and Supplies.")

**Cement Reinforcement.**—See "Electric Plant."

**Construction Work.**—See "Electric Plant."

**Copper.**—W. J. Harvey & Co., Box 367, Cincinnati, Ohio, want prices on 300,000 pounds 4 per cent. trolley copper and 80,000 pounds 7 per cent. feeder copper. (See "Railway Equipment and Supplies.")

**Cotton Goods.**—See "Tickings," etc.

**Cotton Machinery.**—J. W. Watts, Lileadown, N. C., wants offers on cotton machinery; probably 4000 spindles and accompanying equipment for yarns.

**Crane.**—Pegler Manufacturing Co., Fort and 13th Sts., Chattanooga, Tenn., wants prices on hand-power traveling crane.

**Creamery Equipment.**—Milton P. Jarnagin, A. H., University of Georgia, Athens, Ga., wants to correspond with manufacturers of dairy and creamery machinery, etc.

**Crusher.**—C. A. Beinkampen, Radford, Va., wants prices on crusher.

**Cutting Machinery, etc.**—C. A. Beinkampen, Radford, Va., wants prices on machinery for cutting and polishing razor hones and smaller stone, grindstones, mill rock, etc.

**Dairy Machinery.**—See "Creamery Equipment."

**Dam Construction.**—See "Electric Plant."

**Drainage.**—Board of Drainage Commissioners, Harris County Drainage District No. 1, will open bids January 9 at office of George C. Horton, drainage engineer, Theater Bldg., Houston, Texas; specifications at office of Mr. Horton or at County Clerk's office, Houston. Bids will be received for entire work or for any section thereof; work will consist of about 350,000 cubic yards of ditching, depth 4 to 5 feet, base 4 to 20 feet, with 1 to 1 slope; certified check for 5 per cent. of total amount of bid; proposals to be filed with F. H. Liestman, chairman of Drainage District, at Alief, Texas, or with Mr. Horton at Houston.

**Drop Hammer.**—See "Foundry Equipment." **Dyeing and Cleaning Machinery.**—O. M. Chapman, 3726 Hartford St., St. Louis, Mo., wants catalogues and prices on machinery for cleaning and dyeing plant.

**Electric Conducts and Wiring.**—See "Heating Apparatus."

**Electric Equipment.**—Ben L. Jones, 610 3d St., Macon, Ga., wants to buy 8½-kilowatt 125-volt electric generator, complete; also switchboard for generator, with one-volt meter, one main switch and two branch circuit switches. (See "Water-works.")

**Electric Fixtures.**—See "Amusement-park Machinery."

**Electric Generator.**—See "Pumps, etc."

**Electric-light Equipment.**—T. E. Johnson, Mayor, Norcross, Ga., will want bids on poles, wire, small transformers, etc.

**Electric-light Plant.**—City of Terrell, Texas, will be in market for equipment for electric-light plant to cost \$15,000; E. R. Miller, secretary.

**Electric-light Plant.**—Fort Monroe, Va. Sealed proposals in triplicate will be received until January 4 for furnishing and installing two 264-horse-power and one 100-horse-power boilers, two 250-horse-power compound engines, one 250-horse-power and one 120-horse-power engines, two 150-kilowatt and one 75-kilowatt generators; also all steam, exhaust steam, drip and water, suction and discharge connections; one service condenser and gauge board, two boiler feed pumps, three composite inspirators, one feed-water heater, one hot well and automatic pump for oil separator; also for furnishing and installing complete underground system and complete system of street lighting. Bids for five different kinds of work must be submitted separately; bidders on proposals must state names of manufacturers supplying material. Information on application: Ernest R. Tilton, Captain and Constructing Quartermaster.

**Electric Motor.**—Statesville Oil & Fertilizer Co., Statesville, N. C., wants new or second-hand 5 to 7-horse-power motor, 110-125 volts, direct current.

**Electric Plant.**—D. G. Ziegler & Co., care of Suwanee River Railway & Power Co., Jacksonville, Fla., invite estimates on construction of and equipment for dam, canal and power-house, equipment to include turbines, generators, switchboards, transformers, etc.; construction includes cement reinforcements, timbers, gate, roofing, etc.; considering bids for entire plant; location, Suwanee River, three miles from White Spring, Fla.

**Electric Sparklers.**—American Import Co. (Stephan & Co.), 377 Broadway, New York, wants names of American manufacturers of electric sparklers.

**Electric Wiring.**—See "Heating Apparatus."

**Electrical Machinery.**—W. J. Harvey & Co., Box 367, Cincinnati, Ohio, want prices on two 300-horse-power generators and two 50-ton electrical engines. (See "Railway Equipment and Supplies.")

**Elevator-operating Machinery.**—Sydnor Pump & Well Co., Box 949, Richmond, Va., wants to correspond with manufacturers of power attachment to operate hand-rope elevator alternately by hand and power.

**Engine.**—M. C. Winston, Lizzie Cotton Mills, Selma, N. C., wants new or second-hand 250-horse-power Corliss engine.

**Engine.**—See "Gasoline Engine."

**Engine.**—M. Mathewson, manager Houston & Alvin Creamery Co., 1805 Congress St., Houston, Texas, wants 8-horse-power engine for Lagrange (Texas) delivery.

**Engine.**—See "Gasoline Engine."

**Engine.**—See "Gasoline Engine."

**Engines.**—See "Electric-light Plant."

**Engines.**—O. R. Whitney, 39-41 Cortlandt St., New York, wants 700 to 900 horse-power simple Corliss engine (or a pair of equal capacity), to be run under 70 pounds steam pressure; also 24x48 Hamilton or Nordberg Corliss engine; both for prompt delivery; second-hand; send blueprint, prices and specifications first mail.

**Engines.**—W. J. Harvey & Co., Box 367, Cincinnati, Ohio, want prices on two 300-horse-power engines and two 50-ton electrical engines. (See "Railway Equipment and Supplies.")

**Feed-grinding Machinery.**—See "Alfalfa Mill."

**Feed Mill.**—D. T. Manget & Co., Newnan, Ga., want machine for cracking corn and other grain for chicken food.

**Foundry Equipment.**—Chas. A. Vaughn, Milford, Del., wants second-hand drop hammer, 400 or 500-pound head; also trimming press.

**Furniture.**—See "School Furniture."

**Gas Engines.**—Herbert Harris, 405 Coventry Rd., Birmingham, England, wants quotations on suction gas plant, with 30 brake horse-power engines.

**Gasoline Engine.**—C. A. Beinkampen, Radford, Va., wants prices on gasoline engine.

**Gasoline Engine.**—Wells Grain Co., Yukon, Okla., wants bids on gasoline engine.

**Gasoline Engine.**—J. J. Munn & Co., Tenille, Ala., want prices on new or second-hand double-cylinder gasoline engine for saw-mill and cotton gin; present boiler and engine, 50 and 35 horse-power, respectively.

**Gasoline Engine.**—E. N. Wiley, Jr., Le-compte, La., will need six-horse-power water-cooled gasoline engine for machine shop about March 1.

**Grist Mill.**—D. T. Magnet & Co., Newnan, Ga., want machinery for grist mill of 1200 bushels daily capacity.

**Heating Apparatus.**—Bids will be opened January 11 for heating apparatus, plumbing, gaspiping and electric conduits and wiring for U. S. postoffice to be erected at Gainesville, Fla. (See "Government and State Buildings.")

**Heating Apparatus.**—Board of Education, School District No. 35, Holdenville, Okla., wants prices on heating apparatus for school building.

**Heating Apparatus.**—Board of School Directors, Winn Parish, Winnfield, La., will open bids December 15 for installing heating, plumbing and electric wiring in school building; certified check for 10 per cent. amount of bid; plans and specifications on file at offices of L. L. Thurman, architect, Ruston, La., and of J. J. Mixon, Superintendent of Schools, Winnfield. (See "Schools.")

**Heating Plant.**—Carl White, Chattanooga, Tenn., wants estimate on heating for residence costing from \$7000 to \$10,000.

**Heating Plant.**—J. Fred Ferger, Chattanooga, Tenn., wants prices on hot-water heating plant for 18 apartments, 5 rooms and halls.

**Heating Plant.**—Rev. J. P. Culpepper, Newton, Miss., wants prices on heating plant for \$10,000 edifice.

**Heating Plant.**—Geo. H. Carr, 301 Court St., Portsmouth, Va., wants catalogues and prices on heating for two small dwellings.

**Heating Plant.**—N. Bultman, chairman City Council Opera Committee, Sumter, S. C., wants bids on steam or hot-air heating plant for opera-house.

**Iron Work.**—Sealed proposals will be received at office of Lighthouse Engineer, Mo-

bile, Ala., until January 4 for furnishing materials and labor necessary for construction and delivery of metal work for Galveston Jetty Light Station, Texas, in accordance with specifications, copies of which, with blank proposals and other information, may be had upon application to Lighthouse Engineer, Mobile.

**Jewelry.**—G. L. Grey, care of Government fleet, Luna Landing, Ark., wants catalogues and prices on cheap watches; also wants names and addresses of manufacturers of and wholesale dealers in jewelry.

**Lathe.**—J. W. Brock, Honea Path, S. C., wants second-hand engine lathe; eight feet between centers; 16 or 18-inch swing; delivered Eastman, Ga.

**Laundry Equipment.**—Lock Box D, Charles Town, W. Va., is interested in construction of fully equipped steam laundry plant for 4500 population.

**Lighting.**—Carl White, Chattanooga, Tenn., wants estimate on acetylene-gas lighting for \$7000 to \$10,000 dwelling.

**Locomotives.**—East Lynn Lumber Co., East Lynn, W. Va., J. L. Frenier, president, McArthur, Ohio, in market for locomotive.

**Log Cars.**—East Lynn Lumber Co., East Lynn, W. Va., J. L. Frenier, McArthur, Ohio, president, in market for log cars.

**Lumber, etc.**—Bids will be received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until December 28 for furnishing lumber, rubber and leather belting, jacks, steel, grate bars, etc. Blanks and general information relating to Circular No. 483 may be obtained at above office or offices of assistant purchasing agents, 24 State St., New York; Customhouse, New Orleans; 1086 North Point St., San Francisco, Cal.; also from U. S. Engineer office in following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Philadelphia, Pittsburg, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City; Chamber of Commerce, Quincy, Ill.; Chamber of Commerce and Board of Trade, Tacoma, Wash.; F. C. Boggs, Captain, Corps of Engineers, U. S. A., General Purchasing Officer.

**Lumber.**—Carolina Bagging Co., Henderson, N. C., wants lowest cash prices f. o. b. cars Henderson on lumber, as follows: 15 pieces, 10x14, 22, rough, 3850 feet; 30 pieces, 10x14, 23, rough, 8050 feet; 30 pieces, 8x14, 25, D, three sides, 7000 feet; 15 pieces, 8x14, 22, D, three sides, 3075 feet; 30 pieces, 6x8, 11, wedge shape, 1320 feet; 30 pieces, 9x3, 16, D, three sides, 7000 feet; 15 pieces, 8x14, 22, D, three sides, grooved for ¼ foot, 32,266 feet splines; 180 pieces, 4x8, 20, D, three sides, 9600 feet; 600 pieces, 3x8, 22, D, three sides, 26,400 feet; 200 pieces, 3x8, 20, D, three sides, 8000 feet; 30 pieces, 6x12, 22, rough, 3960 feet; total, 106,761 feet; 12,000 feet ¾x3¼ face No. 2 flooring; 32,000 linear feet splines for ¾x1¼ groove.

**Machine Tools.**—Charlotte Contract Co., Piedmont Bldg., Charlotte, N. C., wants pipe-threading tools and portable boring bar equipment.

**Mattress Machinery.**—Wharton Mattress Factory, Wharton, Texas, wants to correspond with mattress-machinery manufacturers.

**Metal-working Machinery.**—Asheboro Wheelbarrow & Manufacturing Co., Asheboro, N. C., wants machinery for stamping trays or beds for wheelbarrows and scrapers.

**Milling Machine.**—American Metallic Packing Co., Lexington, Ky., wants second-hand medium-sized milling machine. Send description, cut, etc.

**Miscellaneous Supplies.**—Bids will be received at office of General Purchasing Officer Isthmian Canal Commission, Washington, D. C., until January 4 for furnishing steel, iron, yellow metal, sulphate of copper, copper tubing, bolts, rivets, etc. Blanks and general information relating to Circular No. 484 may be obtained at above office of assistant purchasing agents, 24 State St., New York; Customhouse, New Orleans; 1086 North Point St., San Francisco, Cal.; also from U. S. engineer office in following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Philadelphia, Pittsburg, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City; Chamber of Commerce, Quincy, Ill.; and Chamber of Commerce and Board of Trade, Tacoma, Wash.; F. C. Boggs, Captain Corps of Engineers, U. S. A., General Purchasing Officer.

**Novelty Manufacturers.**—E. Cockrell, McAlester, Okla., wants addresses of novelty manufacturers.

**Oil-mill Machinery.**—B. Lawson, Fort



Worth, Texas, wants names of manufacturers of cottonseed-oil machinery; also wants information on process of manufacturing.

Oil-mill Machinery.—Planters' Storage Co., Batesburg, S. C., wants prices on machinery for 20-ton cottonseed-oil mill.

Planer and Matcher.—Drawer D. Rocky Mount, N. C., wants second-hand planer and matcher; prompt delivery. Give full details and state location of machine.

Plumbing.—Carl White, Chattanooga, Tenn., wants bids on plumbing for \$7000 to \$10,000 dwelling.

Plumbing and Fixtures.—J. Fred Feger, Chattanooga, Tenn., wants prices on plumbing and fixtures, including sanitary closets, for 18 bathrooms.

Plumbing.—See "Heating Apparatus."

Plumbing and Gas Piping.—(See "Heating Apparatus.")

Poles.—See "Electric-light Equipment."

Polishing Machinery.—See "Cutting Machinery, etc."

Power Attachments.—See "Elevator-operating Machinery."

Printing Press.—Lawrenceville Lumber & Box Co., Lawrenceville, Va., wants second-hand two-color box-printing press.

Producer (Gas) Plant.—See "Gas Engines."

Pulverizer.—C. A. Beinkampen, Radford, Va., wants prices on pulverizer.

Pulverizing Machinery.—W. V. Moore, West End, Va., wants to correspond with manufacturers of pulverizing machinery for soapstone and limestone grinding and separating.

Pump.—See "Water-works."

Pump.—City Council, Hobart, Okla., will receive bids until December 15 on high-duty pump, capacity 2,000,000 gallons per 24 hours; O. E. Noble, City Engineer.

Pump.—Burton & Danforth, Aransas Pass, Texas, want to buy small sand pump to operate with gasoline engine in dredging channel six feet deep and three miles long.

Pumps, etc.—Office of Building for National Museum, Library of Congress, Washington, D. C. Separate sealed proposals for furnishing, delivering and installing in place, with all connections complete, generator switch-board and connecting cables, and for steam pumps required for new building for National Museum, will be received until December 17; specifications and other information furnished on application; Bernard R. Green, Superintendent of Construction.

Rail.—Joseph E. Bowen, Box 777, Norfolk, Va., wants two miles 16-inch relaying steel rail. State where can be seen.

Rails.—East Lynn Lumber Co., East Lynn, W. Va., J. R. Frenier, president, McArthur, Ohio, in market for eight miles of 25-pound rails.

Rails.—International Car Co., Maison Blanche, New Orleans, La., in market for five or six miles of 45-pound steel rails for spur tracks.

Railway Equipment and Supplies.—W. J. Harvey & Co., Box 367, Cincinnati, Ohio, want proposals on: Ties, 80,000; rails, 70-pound, 20,000 tons; 200 kegs spikes; copper, 4 per cent. trolley, 300,000 pounds; copper, 7 per cent. feeder, 80,000 pounds; two 300-horse-power engines; two 300-kilowatt generators; two 300-horse-power boilers; six interurban passenger cars; four closed interurban freight cars; six open freight cars; two 50-ton electrical engines.

Railway Supplies.—Sealed proposals will be received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until December 12 for furnishing steel rails, tie plates, angle bars, spikes and bolts. Blanks and general information relating to this circular (No. 483-A) may be obtained from above office or offices of the assistant purchasing agents, 24 State St., New York city, and Custom-house, New Orleans, La.; also from the U. S. Engineer offices in Pittsburgh, Pa., and St. Louis, Mo. F. C. Boggs, Captain, Corps of Engineers, U. S. A., General Purchasing Officer.

Road Construction.—Wicomico County Commissioners, Salisbury, Md., will receive bids until December 15 for grading and macadamizing one and one-half miles of road between Mardella Springs and Athol, known as the Athol road. Proposals to be made on forms furnished by State Geological Survey Commission, to be obtained through its office in Baltimore, Md. Plans and specifications on file at office of County Commissioners at Salisbury; certified check \$300; Thomas Perry, clerk; H. M. Clark, county road engineer.

Road Paving.—Bids will be received until December 15 for paving Richmond road, Harris county, Texas; plans and specifications on file in office of County Engineer, Houston, Texas; John B. Ashe, County Auditor, Hous-

ton, Texas. (Address omitted in recent item.) Road Rollers.—L. F. Hobbs, Seaboard Bank Bldg., Norfolk, Va., wants to rent or buy six-ton tandem steam roller and 10-ton three-wheel steam roller.

Roofing.—F. P. Helfner, Atlanta, Ga., wants prices on roofing for \$30,000 courthouse.

Sandpaper Machine.—Grant-Bauer Lumber Co., 1109 Ave. E, Birmingham, Ala., wants second-hand sandpaper machine.

Saws.—See "Woodworking Machinery."

School Furniture.—Lockney College and Bible School, Lockney Texas, wants school and other furniture for 10 recitation-rooms and chapel of 45x75 dimensions.

Seating.—See "School Furniture."

Seating.—Rev. John P. Culpepper, Newton, Miss., wants prices on pews for \$10,000 edifice.

Sewer Construction.—Water, Light and Bond Commission, A. H. Denmark, secretary, Fitzgerald, Ga., will receive bids until December 15 for construction of sewer system, consisting of about 20 miles of vitrified-pipe sewers from 6-inch to 18-inch in diameter, together with necessary manholes, flush tanks, etc.; complete plans and specifications on file with J. C. Anderson, engineer, Garbutt-Donovan Bldg., Fitzgerald.

Sewerage System.—J. F. Jacobs, care of Clinton Business League, Clinton, S. C., wants to correspond with engineers relative to survey and estimates for sewerage system.

Shafting.—C. A. Beinkampen, Radford, Va., wants prices on shafting.

Shuttle Blocks.—Woodstock Hardwood & Spool Manufacturing Co., Charleston, S. C., wants to buy several carloads dogwood and persimmon shuttle blocks.

Skidder.—Joseph E. Bowen, Box 777, Norfolk, Va., wants small skidder. State where can be seen.

Slate.—M. E. Parmelee, Knoxville, Tenn., wants prices on Buckingham slate.

Slate.—F. P. Helfner, Atlanta, Ga., wants prices on slate.

Steam Plant.—See "Electric-light Plant." Steel Tower, etc.—Fayetteville Fire Co., C. L. Jones, secretary, Box 307, Fayetteville, N. C., wants bids on 100-foot steel tower; also wants bids on fire bells.

Structural Iron.—F. P. Helfner, Atlanta, Ga., wants prices on iron.

Tank.—Ben L. Jones, 610 3d St., Macon, Ga., wants 1000-gallon cypress tank. (See "Water-works.")

Tickings, etc.—Wharton Mattress Factory, Wharton, Texas, wants to correspond with manufacturers of tickings, etc.

Trimming Press.—See "Foundry Equipment."

Viaduct Construction.—Cul L. Pearce, Independence County Judge, Batesville, Ark., will receive bids until December 19 for construction of following steel highway viaducts and bridges, with trestle approaches and abutments, complete: Swift Slough, Black River township, one four-panel steel-framed viaduct, 80 feet long, 12 feet wide; two concrete abutments, 12 feet high; three steel bents, 8 feet high, set in concrete. Burrow Slough, Christian township, one three-panel steel-framed viaduct, 60 feet long, 12 feet wide; concrete abutments, 10 feet high; two steel bents, 12 feet high; set in concrete. Big Island Slough, Magness township, one through Pratt truss steel highway bridge, 110 feet long, 12 feet wide; steel trestle approaches at each end—two 20-foot panels each, 12 feet wide; total length of bridge and approaches, 190 feet; two steel cylinder piers, 35 feet high; two concrete abutments, 8 feet high; two trestle bents, 14 feet high. Ten-Mile Creek, Fairview township, one through Pratt truss steel highway bridge, 75 feet long, 12 feet wide; two concrete abutments, 10 feet high. Bids to be submitted for each bridge independently, but preference will be given to lowest and best bidder on whole number of bridges; certified check, \$100 for each bridge; plans and specifications on file at County Clerk's office, or may be obtained from Lund & Hill, consulting engineers, Little Rock, Ark.

Watches.—See "Jewelry."

Water-power Equipment.—See "Electric Plant."

Water-works.—Ben L. Jones, 610 3d St., Macon, Ga., wants to buy 8½-kilowatt 125-volt electric generator, complete; 15-horse-power gasoline engine, complete; deep-well pump, complete; Myers pump jack; 1000-gallon cypress tank, mounted, with piping; switch-board for generator, with volt-meter, main switch and two branch circuit switches; all to be installed ready for operation.

Wheelbarrow Machinery.—See "Metal-working Machinery."

Windows and Doors.—Rev. J. P. Culpepper, Newton, Miss., wants prices on windows and doors for \$10,000 church building.

Woodworking Machinery.—Beverly Book Co., Staunton, Va., wants to buy small woodworking machinery.

Woodworking Machinery.—Atlanta Utility Works, East Point, Ga., wants hollow chisel mortiser 16x20 inches, buzz planer and sanding drum. Send catalogues and prices.

Woodworking Machinery.—See "Sandpaper Machine."

Woodworking Machinery.—Southern Wood Works, 1034 14th St., Hickory, N. C., wants prices on woodworking machinery.

Woodworking Machinery.—Herbert Harris, 405 Coventry Rd., Birmingham, England,

wants quotations on band saw with 28-inch wheels; circular saw to take 30-inch saw, rise and fall table; planing, surfacing and thicknessing machine to take 30 inches; radial-arm boring machine to bore up to 1 inch for wood; sliding, surfacing and screw-cutting lathe, 8-inch centers, with loose gap; drilling machine with back gear to drill up to 1½ inches; grinding machine with two emery wheels, 16x2-inch; fast and loose pulleys; suction-gas plant with 30 brake horse-power engines.

Woodworking Machinery.—M. Kelley, Denham Springs Realty Co., Denham Springs, La., wants prices on planer and band and rip saws.

Woodworking Machinery.—See "Planer and Matcher."

## INDUSTRIAL NEWS OF INTEREST

### Wants Agents for Concrete Mixers.

Territory agents are wanted to sell an established line of concrete mixers. For information address No. 381, care of Manufacturers' Record.

### The American Commission Co.

The American Commission Co. announces its removal to its new building at Pryor and Mitchell streets, Atlanta, Ga., where more extensive facilities are provided for the company's important enterprise.

### From Babcock & Wilcox Company.

The Babcock & Wilcox Co. of New York has purchased from the Rust Boiler Co. its patent and plant located at Midland, Pa., and will continue the manufacture at that point of the Rust water-tube boiler.

### For Typewritten Letters.

The Standard Typewriter Co., 437 Equitable Bldg., Baltimore, Md., calls attention to its imitation typewritten letters, which, when names and addresses are carefully filled in to match, and pen-written signatures affixed, have every appearance of personal correspondence and receive the same consideration. Samples and prices furnished on application.

### Northern Water Softener Co.

The Northern Water Softener Co., Madison, Wis., has completed a satisfactory arrangement with D. D. Pendleton, Frick Bldg. Annex, Pittsburg, Pa., and has appointed him exclusive agent in the Pittsburg district. Mr. Pendleton was formerly prominently associated with the Westinghouse interests and has had a broad experience in power-plant propositions.

### McLaughlin, Pettit & Johnson.

J. T. McLaughlin, C. G. Pettit, Jr., and S. S. Johnson, architects, Lynchburg, Va., have formed a copartnership for the practice of their profession. Their offices will be located at 211 9th St., Lynchburg, and in Masonic Bldg., Danville, Va., under the firm name of McLaughlin, Pettit & Johnson. Mr. Pettit will have charge of the Danville office, and wants manufacturers' samples, catalogues and other descriptive data.

### An Ernst Wiener Announcement.

The Ernst Wiener Co., railroad specialist for all industries, 50 Church St., New York, announces it has retained J. N. Richards, who has for 14 years past been general sales manager for the Standard Paint Co. Mr. Richards is well known among the large manufacturing interests and his experience will doubtless prove of value in extending the trade of the Ernst Wiener Co. His headquarters for the present will be at the New York office.

### J. B. Taylor & Co.

J. B. Taylor & Co., recently incorporated with a capital stock of \$500,000, have established offices in the Hudson Terminal Bldg., New York, and are prepared to undertake the engineering, construction, organization and financing of electric and steam railways, water-works, electric-light plants, gas plants and other industries. They have already secured contract to build the Sanoddy Valley Railroad, connecting with the Mobile & Ohio Railroad at Suwannee, Miss.

### The B. M. Root Company.

The B. M. Root Company, York, Pa., has established an office at 136 Liberty St., New York, under the management of R. M. Lusch. In connection with this office the company will, besides acting as a manufacturer of woodworking machinery, deal in equipments of that class. The B. M. Root's specialty is the manufacture of plow-handle and rim-bending machines and a motor-driven band

saw which is direct connected. All kinds of supplies for woodworking plants will also be offered.

### Link-Belt Company Contracts.

Orders recently booked by the Link-Belt Company, Nictown, Philadelphia, Pa., include the following: Cane unloading machinery for Cuba; Peck overlapping bucket carrier for Connecticut; phosphate-rock belt conveyors for Florida; bucket elevator and special chain conveyor of chips for Newfoundland; elevators, light conveyors, hoppers, etc., for coal, pan conveyors for clinkers, etc., for Pennsylvania; gravity discharge elevator, apron feeder and car haul for coal for West Virginia.

### For Engineer and Fireman.

Timely date of interest to the engineer and the fireman is presented each month in the Penberthy Engineer and Fireman, and the November number is especially interesting. The number contains numerous interesting articles from leading publications of the country referring to home study for engineers, connecting water columns, break-downs in steam machinery, bagging in clean boilers, repairing old machinery, etc. The Penberthy Injector Co., Detroit, Mich., publishes the Engineer and Fireman.

### The Edison Concrete House.

The Edison Portland Cement Co., St. James Bldg., New York, will present an interesting exhibit at the exhibition of the National Cement Users' Association in Cleveland, Ohio, January 11 to 16. Besides the manufacture of Edison Portland cement, the company expects to put on exhibition a number of sample castings of the Edison poured concrete house, as the company has obtained permission from Thomas A. Edison to feature these castings. Concrete flowing under gravity is sure to interest the architect, engineer, contractor, builder and layman. The economical value of such a process is certain to be appreciated.

### The Cell Drier.

An illustrated pamphlet has been issued to present a few practical suggestions for the application of the principal of the cell drier to various needs in finishing and other textile plants. Sketches are included representing installations which show not only actual saving in handling fabrics, but a great economy of floor space. Well-known manufacturers using the cell drier include the Coche-co Manufacturing Co., Fulton Bag & Cotton Co., Fall River Bleachery, Massachusetts Cotton Mills, etc. The Cell Drier Machine Co., Taunton, Mass., manufactures and installs the cell driers referred to. It also makes a specialty of developing and building special machinery.

### The J. P. Bell Printing.

The J. P. Bell Company of Lynchburg, Va., maintains one of the most modern and best-equipped printing plants in the South. It is a publisher, stationer, printer and binder, and is making a specialty of illustrated catalogues. A full line of ledgers, journals, cash-books and daybooks is kept in stock ready for immediate use, and the company also makes to order blank books of all sizes and descriptions. The company also publishes Index Virginia Law Register, Magill's History of Virginia, Magill's First Book in Virginia History, Burk's Separate Estates, Barton's Chancery Practice, Barton's Law Practice and Some Prominent Virginia Families. The Bell company was established in 1859.

### Percentage of Roof Fires.

That the greatest percentage of fires occur on or threaten roofs is the statement made by a well-known manufacturer, who states the proof is seen in official fire statistics from the annual reports of municipal fire departments.

Illustrating this by a schedule, it is shown that the percentage of roof fires in the South range from 21 per cent at Dallas, Texas, to 68 per cent at Chattanooga, Tenn. These figures refer to Southern cities that invite little danger from overheated furnaces. The facts are mentioned as an indication that builders of houses should not fail to provide a roof which cannot burn. Such a roof is made of slate, and the Genuine Bangor Slate Co. of Easton, Pa., will furnish further interesting facts to inquirers.

#### Building a Flood Wall.

Along the Ohio River various cities and towns are deeply interested in the nine-foot stage that will insure water transportation at all seasons of the year. But once in a while the river gives its neighbors considerably more than that stage during those periods when the floods come, and sometimes put many of the cities under water. The city of Portsmouth, Ohio, to prevent the devastation thus caused, is erecting a long flood-wall along the river bank in the business section, which will withstand a flood stage of 62 feet. The wall is made of reinforced concrete, the work being done by Kelly Bros., and the Portland cement being furnished by the York Portland Cement Co., whose mill is at Portsmouth. Between 3000 and 4000 barrels of cement have been shipped to the work, which is not yet completed.

#### A Metal-Hardening Solution.

Kalux is a metal-hardening solution extensively used by the leading industrial enterprises. The latter include Charleston & Western Carolina Railway, New Orleans Great Northern Railroad, Central of Georgia Railway, Allis-Chalmers Company, Bignall & Keeler Manufacturing Co., Dietrick & Harvey Machine Co., Garvin Machine Co., Heine Safety Boiler Co., New York Shipbuilding Co., Ridgway Dynamo & Engine Co., Western Electric Co., Standard Roller-Bearing Co., Niles-Bement-Pond Company and many others of equal note in the industrial field. Kalux is manufactured by the Metal Hardening Solution Co., Granite Bldg., Rochester, N. Y. This manufacturer is desirous of naming agents throughout the South, and solicits correspondence.

#### Advertising With Flame Arc Lamps.

Soon after the flame arc lamp was introduced American manufacturers realized that it was destined to play an important part in decorative lighting. In foreign countries the flame arc lamp has been largely adopted for street illumination, but in this country it has been used principally in front of stores and amusement resorts. To the brilliant light emitted by the flame arc lamp is due its advertising value. The entire globe seems filled with a luminous gas, and although the light penetrates the thickest fogs or smoke, it is soft and not blinding to the eye. Carbons giving a yellow or orange color are generally used, but they can be obtained for red or white. The General Electric Co. of Schenectady, N. Y., has been prominent in the manufacture of flame arc lamps, and it is prepared to send interesting information of its type.

#### The Charlotte Contract Co.

The Charlotte Contract Co. of Charlotte, N. C., has established offices in the Piedmont Bldg., in charge of F. W. McComb, who was for a number of years similarly engaged with the D. A. Tompkins Company and the American Machine & Manufacturing Co. The new company is prepared to design and install any kind of pipe work, but will make a specialty of fire-protection equipment, steam and hot-water heating and power-plant piping. O. V. Branson to have this department in charge. Another department will be to furnish and erect textile and oil-mill equipment, and any kind of engine work from indicating to complete overhaul, etc., W. H. Grose being in charge of the department. Mr. Grose obtained his experience as general superintendent of the Tompkins and American companies mentioned. S. B. Sargent, who was also previously connected with those companies as general manager, is largely interested in the Charlotte Contract Co., and will give it the benefit of his broad experience.

#### Recent American Blower Contracts.

There is a continued and increasing demand noted for the products of the American Blower Co., Detroit, Mich. Orders are reaching the company from all parts of the country, as is indicated by the following brief references to its list of the most important sales effected during November: "A B C" special driers sold in three States; "A B C" brick driers in Illinois, Ohio, Iowa, Michigan and Pennsylvania; "A B C" steam traps in New York, two being for export; Detroit tilting traps in Indiana, Montana and

Massachusetts; "A B C" engines in many States, including Missouri, Louisiana, South Carolina and Mexico; forced-draft apparatus in Georgia, Nebraska, Canada, etc.; induced-draft apparatus in Iowa, Minnesota and Louisiana; heating and ventilating apparatus in 28 cities, comprising 46 separate installations, the cities including Atlanta, Ga.; St. Joseph, Mo.; St. Louis, Mo.; New York, Philadelphia, Detroit; Portland, Ore.; Chicago, Pittsburgh, San Francisco, Cincinnati, etc. Shop and mine ventilating apparatus were also delivered in various States.

#### TRADE LITERATURE.

##### M. B. Moore of Cambria, Va.

M. B. Moore, contractor and builder and wholesale planing-mill work, Cambria, Va., is distributing a 1909 calendar presenting a view of "The Old Orchard" as a reminder of his facilities.

##### Remote Control Oil Switches.

The Electric Storage Battery Co., Allegheny Ave. and 19th St., Philadelphia, has issued Bulletin No. 110 in reference to the operation of chloride accumulators in connection with remote-control oil switches.

##### A Handshake.

People interested in roofing, whether as dealers or users, can find information of value in the "Handshake," a little publication issued once in a while for the mutual benefit of the Genuine Bangor Slate Co. and its friends. That company is well known for its slate-roofing materials. Its main offices are at Easton, Pa.

##### New B. F. Sturtevant Product.

"Our New Product" is the title of Bulletin No. 158 in the Sturtevant engineering series. It refers to the B. F. Sturtevant steel-plate fans, electric fans, steam fans, turbine fans, mine fans, hot-blast apparatus, economizers, waste-heat air heaters, etc., manufactured by the B. F. Sturtevant Company, Hyde Park, Mass. Various photographic views accompany the descriptions.

##### Westinghouse Type S Distributing Transformers.

Circular No. 1157 has been issued to illustrate and describe the Westinghouse type S distributing transformers manufactured by the Westinghouse Electric & Manufacturing Co., Pittsburgh, Pa. It presents interesting facts that should be familiar to all who are concerned with the latest improved electrical apparatus comprised in transformers.

##### Cotton Chats for November.

Cotton Chats for November is being distributed. It presents interesting facts regarding orders for looms received during the depression of the past year by the Draper Company of Hopedale, Mass. These orders call for more than 12,000 Northrop looms for old mills replacing common looms, covering a wide range of fabrics. Many Southern cotton mills are represented among the purchasers.

##### Buffalo Forge Co. Literature.

The Buffalo Forge Co., Buffalo, N. Y., presents catalogue No. 197 to illustrate and describe its Buffalo fan system of heating and ventilating. The publication is divided into four parts: Heating and ventilating public buildings; heating and ventilating industrial buildings, Buffalo heating and ventilating apparatus, data on heating and ventilating. Numerous photographic views, tables and diagrams assist in elucidating the text.

##### Ryerson's Journal and Stock List.

Ryerson's Monthly Journal and Stock List for December includes articles on power hammers and their uses, steel paving, tool steel, burning oil in return tubular boilers, proportioning air receivers, etc. It also contains illustrations and descriptions of the machine tools, iron and steel, rollers, food cutters, chain blocks, rivet forges, steel I beams, steel angles and various other products offered by Messrs. Joseph T. Ryerson & Son, Chicago, Ill.

##### The Westinghouse 1909 Diary.

In accordance with a custom started in 1905, the Westinghouse Companies' Publishing Department, Pittsburgh, Pa., representing the Westinghouse interests in the United States and Canada, has published annually a diary replete with information of value as well as being of use for diary purposes. The 1909 edition, now being distributed among the companies' friends, surpasses previous issues in containing more important data and information of interest to engineers and users of power apparatus. Among the more important subjects covered are high-pressure steam turbine, Leblanc con-

denser, low-pressure steam turbine, mechanical stoker, mercury vapor lamps, meter testing, storage battery, single-phase railway systems, tungsten lamps, turbo pumps and blowers, and Westinghouse-Nernst lamps. The diary is bound in heavy leather and is in every way commensurate with the interests it represents.

##### The Bay State Engines.

Engine catalogue No. 19 has been issued by the Bay State Iron Works of Erie, Pa. It illustrates and describes briefly the engines built by the company, the equipments being strong, well made and designed for heavy duty. They include stationary side-crank engines, semi-enclosed center-crank automatic engines, semi-enclosed side-crank engines, semi-enclosed double engines, portable engines on wheels and on skids, and vertical tubular boilers of stationary and portable types.

##### Devoted to Things Electrical.

Those good people who want to get a "little good wisdom combined with a little good fun" are advised to read the "Everbest" Magazine, published by the Ewing-Merkle Electric Co., 1106 Pine St., St. Louis. The December number is now being distributed, and it is up to the standard established by previous issues of the little magazine. The publisher issues it to provide wholesome amusement and information regarding Ewing-Merkle electrical machinery and supplies.

##### Economical Screening Machinery.

"The Economical Handling of Material" is the specialty of the C. O. Bartlett & Snow Company, engineer and manufacturer, Cleveland, Ohio. This is rather a superfluous statement, as the company's designs of elevating, conveying, drying and other machines have become widely and favorably known among exacting buyers. Catalogue No. 27 has been issued by the company to illustrate and describe its screening machinery, the views including large installations in various cities.

##### About Graphite.

The Joseph Dixon Crucible Co., Jersey City, N. J., is distributing "Graphite" for December, containing timely data relative to the different forms of graphite and their respective uses. Preventing corrosion of steam machinery, protecting chimneys against lightning, care of crucibles in the brass foundry, lubrication, and various other subjects are given attention. This is the anniversary number of "Graphite," and was thought to be an appropriate one in which to present the new title piece.

##### Some Automatic Stoker Information.

Timely data relative to the popularity and efficiency of the Jones stoker is presented in the Publicity Magazine for November. The publication contains facts, figures and photographic views that will interest. The views include the Powers Block at Rochester, the Napoleon (Ohio) water-works and electric-light plant, the Overbrook Steam Heat Co. of Philadelphia, etc., in all of which the Jones underfeed stoker is used. The Underfeed Stoker Co. of America, Marquette Bldg., Chicago, will furnish further information of this stoker.

##### Mine and Quarry News.

Timely news of interest to people who are concerned with the management of mines and quarries is presented in Mine and Quarry for October. This number includes articles in reference to the progress on the Ashokan dam, a new departure in mine power plants, testing for bridge foundations, machine coal mining in Illinois, Alabama marble, a new coal-mining machine for low veins, etc. This publication is issued by the well-known Sullivan Machinery Co., manufacturer of mining and quarrying machinery, Railway Exchange, Chicago.

##### Western Electric Steam Turbines.

Steam turbines built by the Western Electric Co. are described and illustrated in that company's bulletin No. 5370. The company early recognized the fact that the steam turbine, because of its reduced cost of installation and low operating expense, would be substituted to a large extent for the reciprocating engine. It began a careful study of various types and adopted the well-known Rateau turbine. This is the machine described in the bulletin. The Western Electric Co. has its principal plant at Hawthorne, Chicago, Ill., and New York offices at 463 West street.

##### From the Western Electric Co.

"What the Western Electric Co. is Doing to Increase the Central Station Road" is the

title of a recent booklet of interest to owners and managers of central stations. It tells of that company's vigorous efforts during the past year to extend its sales of electrical apparatus and supplies, in which efforts success has been met. "Pointers on Power" is another booklet issued by the company. It is devoted to the subject of machine drive by induction motors, treating this subject quite comprehensively and illustrating Western Electric induction motors attached to various types of machines. For copies address the Western Electric Co., 463 West St., New York, or at the main plant, Hawthorne, Chicago, Ill.

##### The Wheeler-Edwards Air Pump.

The Wheeler-Edwards air pump is the subject of an elaborate 32-page treatise published by the Wheeler Condenser & Engineering Co., Cartaret, N. J. The peculiar action of the Wheeler-Edwards pump in handling both air and water is explained, and it is shown how the absence of foot and bucket valves and an exceedingly small clearance results in the attainment of a high vacuum otherwise to be had only by means of separate dry-vacuum pumps, hot-well pumps and air coolers. Various types of Wheeler-Edwards pumps are illustrated, also a number of large steam turbine installations in which these pumps are used. The latter half of the book is made up of discussions of the principles of air pumps, tables of mixed vapors, a complete and original table of saturated water vapor from 60 to 180 degrees F., etc. The final section gives practical instructions for the handling of pumps of this character. This booklet should be valuable to anyone interested in vacuum machinery.

##### Cleaning by the Vacuum System.

Cleaning by the vacuum system has come into extensive use throughout the country. The Vacuum Engineering Co., 114 Liberty St., New York, is especially active in this field, and is giving its attention not only to the question of dust separation, but also to the importance of its economical and sanitary removal. The company offers its vacuum system for cleaning, sweeping, scrubbing and mopping. It automatically conveys the dust direct to the sewer without any handling or attention. Patents cover this feature, which is said to embody a principle essentially different from other methods. The apparatus is so constructed that dust and solid matter are drawn through a saturating chamber, in which a very small flow of water is maintained. The dust in passing through this water becomes thoroughly dissolved and the mixture is carried through the pump and automatically discharged direct to the sewer in the form of discolored water. A booklet issued by the company describes its equipments, besides illustrating them and various important buildings in which they are used.

##### Manning, Maxwell & Moore's Machine-Tool Catalogue.

Probably the most complete catalogue ever issued of modern machine tools designed for service with high-speed steel and with the latest devices in motor drives is that published by Messrs. Manning, Maxwell & Moore, 85-87-89 Liberty St., New York. The book is practically an encyclopedia of machine tools, and contains nearly 1200 9x12 1/2-inch pages, in which American engineering skill in machine-tool construction has been displayed to decided advantage. It is a summary of the work of all the foremost designers in the many branches of machine-tool building in the United States. The tools illustrated and described are grouped carefully to enable anyone to conveniently investigate the different lines of machine tools represented. The first 125 pages are devoted exclusively to a general line of tools for railroad machine shops; another section is devoted to electric, traveling cranes, dock cranes, wrecking cranes and other similar devices. For convenience, a careful codification of all types of machine tools and appliances illustrated has been made, and each illustration (of which there are 2570 from photographs) is marked by a figure number to be used in ordering. It is evident Messrs. Manning, Maxwell & Moore spared no expense in preparing and publishing their machine-tool catalogue, it having been designed and printed by the American Bank Note Co., and it is strongly bound to promote its durability in handling. The book will be a valuable addition to the library of any establishment in which data on machine tools is wanted. Messrs. Manning, Maxwell & Moore have branches throughout the country, including Birmingham, Ala., and St. Louis, Mo., in the South.



## PROPOSALS INVITED FOR CONSTRUCTION WORK.

Details regarding construction work, proposals invited, etc., noted in the following list, will be found in this and recent issues of the MANUFACTURERS' RECORD and the DAILY BULLETIN OF THE MANUFACTURERS' RECORD.

This list includes only items containing specifications for bids. Many additional opportunities for construction and machinery contracts can be noted in the Construction Department.

\* Indicates that the item has appeared in our "Machinery, Proposals and Supplies Wanted" department.

Date to open bids. (When date is not given it has not been fixed.)	Published in— Daily Bulletin.	Manu- facturers' Record.
<b>BRIDGES, CULVERTS, VIADUCTS.</b>		
Jan. 1	Mena, Ark.	Oct. 17 Oct. 22
Dec. 12	*Concrete Steel Bridge, Takoma Park, Md.	Oct. 29 Nov. 5
Dec. 12	*Six Steel Bridges, Abbeville, S. C.	Nov. 5 Nov. 12
Dec. 12	*Amelia Courthouse, Va.	Dec. 1 Dec. 3
Dec. 19	*Culverts, Barton Heights, Va.	Dec. 1 Dec. 3
Dec. 17	*Steel Highway Viaduct, Batesville, Ark.	Dec. 7 Dec. 10
Dec. 17	Concrete Viaduct, Houston, Texas.	Dec. 7 Dec. 10
Dec. 15	*Iron Bridge, Martinsville, Va.	Dec. 7 Dec. 10
Dec. 15	*Wood or Steel, Spartanburg, S. C.	Dec. 7 Dec. 10
<b>ELECTRIC LIGHT AND POWER PLANTS.</b>		
Dec. 22	*Bristol, Tenn.	Nov. 2 Nov. 5
Dec. 22	*Plant for Jefferson Barracks, St. Louis, Mo.	Nov. 28 Dec. 3
Dec. 22	Chillicothe, Mo.	Dec. 4 Dec. 10
Dec. 22	*Norcross, Ga.	Dec. 7 Dec. 10
Dec. 22	*Water-power-electric Development, White Spring, Fla.	Dec. 8 Dec. 10
<b>MISCELLANEOUS CONSTRUCTION WORK.</b>		
Dec. 24	*Levee Work, Waco, Texas.	Nov. 13 Nov. 19
Dec. 11	*Seawall, Fort Moulton, Ala.	Nov. 23 Nov. 26
Dec. 11	*Levee Work, Lewisville, Ark.	Nov. 23 Dec. 3
Dec. 11	Wharves, New Orleans, La.	Dec. 5 Dec. 10
Dec. 11	*Heating Plant, Sumter, S. C.	Dec. 8 Dec. 10
Jan. 6	*Ditching, Houston, Texas.	Dec. 9 Dec. 10
<b>ROAD AND STREET IMPROVEMENTS.</b>		
Dec. 15	*Vitrified Brick, etc., Asbland, Ky.	Oct. 20 Nov. 5
Dec. 22	*Road Work, Houston, Texas.	Nov. 25 Dec. 3
Dec. 22	*Cement Sidewalks, etc., Opelousas, La.	Nov. 25 Dec. 3
Dec. 22	*Brick Paving, Purcell, Okla.	Nov. 25 Dec. 3
Dec. 23	*Street Paving, etc., Roanoke, Va.	Dec. 1 Dec. 3
Dec. 15	*Macadamizing, Salisbury, Md.	Dec. 3 Dec. 10
Dec. 15	Vitrified Brick, etc., Ada, Okla.	Dec. 7 Dec. 10
<b>SEWER CONSTRUCTION.</b>		
Dec. 15	*Sanitary Sewers, Winston, N. C.	Sept. 19 Sept. 24
Dec. 15	*Drainage, etc., San Antonio, Texas.	Oct. 23 Oct. 29
Dec. 15	Municipal System, Fitzgerald, Ga.	Nov. 23 Nov. 26
Dec. 15	*Storm-water Drains, Baltimore, Md.	Nov. 27 Dec. 3
Dec. 15	*Reinforced Concrete Sewer, etc., Louisville, Ky.	Nov. 27 Dec. 3
Dec. 15	*Sewerage System, Fitzgerald, Ga.	Dec. 4 Dec. 10
Dec. 21	Storm Sewerage, Muskogee, Okla.	Dec. 4 Dec. 10
Dec. 21	Sewer System Surveys, Clinton, S. C.	Dec. 8 Dec. 10
Dec. 21	Municipal System, Seymour, Texas.	Dec. 7 Dec. 10
<b>WATER-WORKS.</b>		
Dec. 15	*System, Marceline, Mo.	Sept. 21 Sept. 24
Jan. 1	*Municipal System, Uniontown, Ky.	Nov. 19 Nov. 26
Jan. 1	Municipal System, Palmetto, Fla.	Nov. 20 Nov. 26
Feb. 1	Municipal System, Osceola, Ark.	Dec. 4 Dec. 10
Dec. 15	*2,000,000-Gallon Pump, Hobart, Okla.	Dec. 5 Dec. 10
Dec. 15	Municipal System, Seymour, Texas.	Dec. 7 Dec. 10
Dec. 15	Water Mains, Huntsville, Ala.	Dec. 8 Dec. 10
<b>BANK AND OFFICE BUILDINGS.</b>		
Dec. 15	National City Bank, Birmingham, Ala.	July 28 July 30
Dec. 15	First National Bank, Coeburn, Va.	Aug. 12 Aug. 13
Feb. 1	Middletown Savings Bank, Middletown, Md.	Aug. 24 Aug. 27
Jan. 1	C. P. McKinney, Ripley, Tenn.	Oct. 29 Nov. 5
Jan. 1	First National Bank Building Co., Ft. Smith, Ark.	Oct. 30 Nov. 5
Jan. 1	E. P. Ansley, Atlanta, Ga.	Nov. 9 Nov. 12
Jan. 1	State National Bank Building, Little Rock, Ark.	Nov. 9 Nov. 12
Jan. 1	Manhattan Sav. Bank & Trust Co., Memphis, Tenn.	Nov. 11 Nov. 12
Jan. 1	Southern Life Insurance Co., Fayetteville, N. C.	Nov. 21 Nov. 26
Jan. 1	First National Bank, Hendersonville, N. C.	Nov. 19 Nov. 26
Jan. 1	Whitney Central National Bank, New Orleans, La.	Nov. 25 Dec. 3
Jan. 1	Guarantee Trust & Banking Co., Atlanta, Ga.	Nov. 27 Dec. 3
Jan. 1	Franklin Savings Bank, Frederick, Md.	Nov. 30 Dec. 3
<b>CHURCHES.</b>		
Jan. 1	First Baptist Church, Paris, Ky.	July 13 July 16
Jan. 1	Hopkinsville, Ky.	Aug. 19 Aug. 20
Jan. 1	Green Cove Springs, Fla.	Sept. 22 Sept. 24
Jan. 1	First Baptist Church, Lumberton, N. C.	Oct. 12 Oct. 15
Jan. 1	Presbyterian Church, Whitman, Ga.	Nov. 2 Nov. 5
Jan. 1	Quitman, Ga.	Nov. 28 Dec. 3
Jan. 1	Laurens, S. C.	Dec. 1 Dec. 3
Jan. 1	Gillespie Avenue Baptist Church, Knoxville, Tenn.	Dec. 3 Dec. 10
Jan. 1	M. E. Church, Parkersburg, W. Va.	Dec. 8 Dec. 10
<b>COURTHOUSES.</b>		
Dec. 15	Martinsburg, W. Va.	July 15 July 16
Dec. 15	Tulla, Texas.	Nov. 20 Nov. 26
Dec. 15	Additions, Towson, Md.	Dec. 4 Dec. 10
<b>GOVERNMENT AND STATE BUILDINGS.</b>		
Dec. 26	U. S. Postoffice, etc., Americus, Ga.	Nov. 18 Nov. 19
Dec. 28	U. S. Postoffice, etc., Lake Charles, La.	Nov. 18 Nov. 19
Dec. 28	U. S. Postoffice, etc., Newbern, N. C.	Nov. 28 Dec. 3
Dec. 31	Barrack Building, Fort Howard, Md.	Dec. 1 Dec. 3
Jan. 7	Barracks, Fort Moultrie, S. C.	Dec. 4 Dec. 10
Jan. 7	U. S. Postoffice, Johnson City, Tenn.	Dec. 4 Dec. 10
Jan. 9	U. S. Postoffice, Murfreesboro, Tenn.	Dec. 7 Dec. 10
Jan. 11	U. S. Postoffice, Gainesville, Ga.	Dec. 8 Dec. 10
Dec. 22	Weather Bureau, Mount Weather, Va.	Dec. 8 Dec. 10
<b>HOTELS.</b>		
Dec. 15	Coleman-Fulton Pasture Co., Gregory, Texas.	Sept. 9 Sept. 10
Dec. 15	Hermitage Hotel Co., Nashville, Tenn.	Sept. 10 Sept. 17
Dec. 15	Beeville, Texas.	Nov. 25 Dec. 3
Dec. 15	Corpus Christi, Texas.	Nov. 25 Dec. 3
Dec. 15	Pensacola, Fla.	Nov. 28 Dec. 3

Date to open bids.  
(When date is  
not given it has  
not been fixed.)

Date to open bids. (When date is not given it has not been fixed.)	Published in— Daily Bulletin.	Manu- facturers' Record.
<b>MISCELLANEOUS STRUCTURES.</b>		
Jan. 1	Miller Store Co., Knoxville, Tenn.	Aug. 29 Sept. 3
Jan. 1	Memorial Home, Little Rock, Ark.	Nov. 25 Dec. 3
Dec. 15	Infirmity, Catlettsburg, Ky.	Oct. 21 Oct. 22
Dec. 15	County Home, Independence, Mo.	Dec. 7 Dec. 10
Dec. 15	County Asylum, Mobile, Ala.	Dec. 9 Dec. 10
<b>MUNICIPAL BUILDINGS.</b>		
Dec. 30	City Stockade, Tampa, Fla.	Nov. 9 Nov. 13
Dec. 28	Police Station, Anacostia, D. C.	Dec. 1 Dec. 3
Dec. 18	City Hall, Bamberg, S. C.	Dec. 3 Dec. 10
Dec. 14	City Hall, Alexandria, La.	Dec. 7 Dec. 10
Dec. 14	City Hall, Greenwood, S. C.	Dec. 8 Dec. 10
Dec. 14	Fire Hall, Knoxville, Tenn.	Dec. 8 Dec. 10
<b>SCHOOLS.</b>		
Jan. 1	Nixon, Texas.	Sept. 23 Sept. 24
Dec. 11	Central, S. C.	Nov. 16 Nov. 19
Dec. 16	New Orleans, La.	Nov. 19 Nov. 26
Dec. 16	Hartshorne, Okla.	Nov. 28 Dec. 3
Dec. 16	Winnfield, La.	Dec. 3 Dec. 10
Dec. 23	Plans, not bids, Daytona, Fla.	Dec. 7 Dec. 10
Dec. 22	Raymona, Okla.	Dec. 8 Dec. 10

### Texas' Assessed Values.

Taxable values of Texas increased during the past 12 months \$600,000,000, and now reach the total of \$2,200,000,000. This increase is partly due to the development that has been going on in Texas the past 12 months in every line of business, partly to the fact that the assessors are rendering property more nearly its market value. Nearly every county shows a healthy increase, and is indicative of the prosperous condition of the State.

The Washington (D. C.) Board of Trade has elected Messrs. Henry Small, Jr., president; Gen. Geo. H. Harries and Thomas C. Noyes, vice-presidents; E. H. Droop, treasurer, and James B. Lerner, general counsel.

### FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

### Review of the Baltimore Market.

Office MANUFACTURERS' RECORD, Baltimore, Md., December 9.

Activity and strength have characterized the Baltimore stock market during the past week. In the trading United Railways common sold at 11½; do. trust certificates, 11½ to 11¾; do. income bonds, 53¾ to 53¾; the funding scrip also from 80 to 81; and the funding scrip also from 80 to 81; United 4s, 85¼ to 86; Consolidated Gas, Electric Light & Power common, 30; do. preferred, 76 to 77; do. 4½s, 80½ to 83; Consolidated Gas 6s, 104¼; do. 5s, 111 to 112; Seaboard Company common, 9½ to 11; do. first preferred, 40 to 47; do. second preferred, 18¾ to 21; Seaboard 4s, 60¼ to 64; do. 10-year 5s, 93 to 94½; do. three-year 5s, 93¼ to 95; Consolidated Cotton Duck, 7½ to 7¾; Mt. Vernon-Woodberry Cotton Duck 5s, 79 to 80; G. B. S. Brewing 1sts, 46¾ to 47¾.

Bank of Baltimore stock sold at 122½; American Bonding, 49 to 50; Fidelity & Deposit, 142 to 150; Maryland Casualty, 75½; Mercantile Trust, 135 to 139; Continental Trust, 185; Colonial Trust, 27; United States Fidelity & Guaranty, 112; Baltimore Trust, 285 to 288; Mechanics' Bank, 20½; Union Bank, 124½.

Other securities were traded in thus: Northern Central Railway stock, 98¼ to 100½; Consolidation Coal, 90 to 92; Houston Oil common, 7½ to 8, last sale at 7½; Atlantic Coast Line new 4s, certificates, 78½ to 79; do. Connecticut 5s, certificates, 100; Macon Railway & Light 5s, 95½; Norfolk Railway & Light 5s, 94¾ to 95; Norfolk Street Railway 5s, 108; Baltimore City 4s, 105¼, 103¼; do. 3½s, 1930, 98 to 99; do. do. 1980, 92¼ to 94; do. do. 1928, 98 to 99; do. do. 1945, 98;

do. do. 1940, 98½ to 99; do. 5s, 1916, water, 107; do. 4s, 1925 (Western Maryland), 104½; Virginia deferred, Brown Bros. certificates, 45; Atlantic Coast Line 4s, 95½; do. (Louisville & Nashville) collateral trust 4s, 87; do. Connecticut 4s, certificates, 83; do. Connecticut 5-20s, 4s, certificates, 84½; Anacostia & Potomac 5s, 101¼; Baltimore Traction 5s, 110½; Charleston Consolidated Electric 5s, 89; West Virginia Central 6s, 104¾; Baltimore Electric 5s, stamped, 84¼ to 86; Western Maryland Railroad stock, 7¼ to 7½; Canton Company (Baltimore), 90; Georgia, Carolina & Northern 5s, 106 to 107; Carolina Central 4s, 92½ to 92; Coal & Iron Railway 5s, 101½ to 102½; Savannah, Florida & Western 6s, 125½; Seaboard & Roanoke 5s, 107½ to 108¼; Norfolk Railway & Light stock, 18¾; Colorado Southern 4s, 96; Georgia & Alabama Consolidated 5s, 103½; Maryland & Pennsylvania incomes, 62¼; Georgia Southern & Florida common, 20 to 21; Raleigh & Augusta 6s, 117¼; Colorado Southern refunding 4½s, 88¾ to 90; Maryland Telephone 5s, 94; Alabama Consolidated Coal & Iron common, 37; Frederick Turnpike, 2½; Reisterstown Turnpike, 3; Virginia Central, 94; Charleston City Railway 5s, 106½; Virginia Electric Railway & Development 5s, 102½; Maryland 3s, 98½; Florida Central & Peninsular 5s, 100; Merchants & Miners' Transportation Co., free stock, 74½.

### SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended December 9, 1908.

Securities	Par	Bid.	Asked.
<b>Railroad Stocks.</b>			
Atlantic Coast	100	248	250
Atlantic Coast of Conn.	100	21½	21½
Georgia Southern & Florida	100	87	87
Georgia South. & Fla. 1st Pfd.	100	67	70
Georgia South. & Fla. 2d Pfd.	100	18½	19
Norfolk Railway & Light	100	10½	11½
Seaboard Co. Com.	100	50	50
Seaboard Co. 1st Pfd.	100	19½	21
Seaboard Co. 2d Pfd.	100	11½	11½
United Rwy. & Elec. Co.	50	78	78
Western Maryland	50	78	78
<b>Bank Stocks.</b>			
Citizens' National Bank	100	48	48
Far. & Mer. Nat'l Bank	100	122½	122½
National Bank of Baltimore	100	122½	122½
National Exchange Bank	100	122½	122½
National Howard Bank	100	122½	122½
National Union Bank of Md.	100	122½	122½
Second National Bank	100	122½	122½
Third National Bank	100	122½	122½
Western National Bank	100	122½	122½
<b>Trust, Fidelity and Casualty Stocks.</b>			
American Bonding Co.	25	49	49
Balto. Trust & Guar.	100	287	300
Colonial Trust	50	27	28
Continental Trust	100	183½	184½
Fidelity & Deposit	50	148	150
International Trust	100	125½	125½
Maryland Casualty	25	75	75
Maryland Trust	100	60	70
Maryland Trust Pfd.	100	90	100
Merc. Trust & Deposit	50	136	138½
Union Trust	50	61	62
U. S. Fidelity & Guaranty	100	110	115
<b>Miscellaneous Stocks.</b>			
Ala. Con. Coal & Iron	100	29	40
Ala. Con. Coal & Iron Pfd.	100	72½	79
Con. Cotton Duck Com.	50	7½	8½
Con. Cotton Duck Pfd.	50	28	28
Con. Gas, Elec. L. & P. Pfd.	100	78	79
Consolidation Coal	100	91¾	92
G. B. S. Brewing Co.	100	25	4
George's Creek Coal	100	77	80
Mer. & Miners' Trans. Co.	100	73	75
<b>Railroad Bonds.</b>			
Atlanta & Birmingham 4s.	80	85	85
Atlanta & Charlotte Ext. 4½s.	100½	100½	100½

Atlantic Coast Line 1st 4s, 1962.....	95 1/4	95 3/4
Atlantic Coast Line New 4s, Cdfs.....	78 1/2	80
Atlantic C. L. (Conn.) 4s, Cdfs.....	81	82
Carolina Central 4s, 1949.....	92	92 1/2
Charlotte, Col. & Aug. 1st 5s, 1910.....	106	106
Coal & Iron Railway 5s, 1930.....	102	103
Georgia & Alabama 5s, 1943.....	103 1/2	104
Georgia, Car. & North. 1st 5s, 1929.....	106 1/2	107 1/4
Georgia Pacific 1st 6s, 1922.....	117	118
Georgia South. & Fla. 1st 5s, 1945.....	106 1/2	108
Maryland & Pennsylvania 4s, 1951.....	94	94
Piedmont & Cum. 1st 5s, 1911.....	100	102
Potomac Valley 1st 5s, 1941.....	106	106
Raleigh & Augusta 1st 6s, 1926.....	117	118
Richmond & Danville Gold 6s, 1915.....	110 1/2	111 1/4
Savannah, Fla. & West. 6s.....	125	125
Seaboard Air Line 4s, 1950.....	63 1/4	63 3/4
Seaboard Air Line 5s, 10-yr., 1911.....	94 1/4	95 1/4
Seaboard Air Line 5s, 3-yr., 1911.....	94 1/4	94 1/4
Seaboard & Roanoke 5s, 1926.....	108 1/4	108 1/2
South Bound 5s, 1941.....	104 1/4	105 1/4
Virginia Midland 5th 5s, 1926.....	104	105 1/4
Washington Terminal 3 1/2s.....	93 1/2	94
Western Maryland 4s, 1932.....	93 1/2	94 1/4
Western Maryland 2d 4s.....	54	60
Western N. C. Con. 6s, 1914.....	109	109
West Va. Cent. 1st 6s, 1911.....	104 1/4	104 1/4
Will. Col. & Aug. 6s, 1910.....	104 1/4	104 1/4
Washington & Vandalia 4 1/2s.....	98 1/2	98 1/2
Wilmington & Wendover.....	100	100

Street Railway Bonds.		
Anacostia & Potomac 5s, 1949, Gtd.....	101 1/2	101 1/2
Atlanta Con. St. Rwy. 5s.....	106	107
Augusta Rwy. & Elec. 5s, 1940.....	98	101
Balto. City Pass. 5s, 1911.....	101 1/4	101 1/4
Balto. City Pass. 4 1/2s.....	95	96
Balto. Trac. 1st 5s, 1929.....	110 1/2	111 1/2
Balto. Trac. (N. B. Div.) 5s, 1942.....	113	113
Central Ry. Con. 5s (Balto.), 1932.....	110 1/2	110 1/2
Charleston City Ry. 5s, 1923.....	106	106 1/2
Charleston Con. Elec. 5s, 1939.....	90	90
Knoxville Trac. 1st 5s, 1928.....	104 1/2	104 1/2
Lexington Railway 1st 5s, 1949.....	95 1/2	96 1/2
Macon Ry. & L. T. 1st con. 5s, 1933.....	95	96
Memphis Street Railway 5s.....	95 1/4	96 1/4
Newport News & Old Pt. 5s, 1938.....	95	96
Norfolk Railway & Light 5s.....	95	95
Norfolk Street Railway 5s, 1944.....	107	108
United Railways 1st 4s, 1949.....	85 1/2	86
United Railways Inc. 4s, 1949.....	85 1/2	86
United Railways Funding 5s.....	80 1/2	81

Miscellaneous Bonds.		
Alt. Con. Coal & Iron 5s.....	82	86 1/2
Baltimore Electric 5s.....	85 1/4	86
Consolidated Gas 6s, 1910.....	104 1/4	104 1/4
Consolidated Gas 5s, 1939.....	111 1/2	113
Consolidated Gas 4 1/2s.....	93 1/2	94
Con. Gas, Elec. L. & P. 4 1/2s.....	82 1/2	83 1/2
G. B. S. Brewing 1st 4s.....	47	47 1/2
G. B. S. Brewing Inc. 4s.....	16	17
Maryland Telephone 5s.....	93 1/4	95
Mt. Vernon-Woodbury Cot. Duck 5s.....	79 1/2	79 1/2
United Elec. L. & P. 4 1/2s.....	94 1/2	94 1/2

## SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending December 7.

Abbeville Cotton Mills (S. C.).....	75	82
Aiken Mfg. Co. (S. C.).....	82	82
American Spinning Co. (S. C.).....	145	150
Anderson Cotton Mills (S. C.).....	70	70
Arcadia Mills (S. C.).....	90	90
Arkwright Cotton Mills (S. C.).....	107	110
Augusta Factory (Ga.).....	65	70
Avondale Mills (Ala.).....	110	125
Belton Mills (S. C.).....	116	116
Brandon Mills (S. C.).....	125	125
Cabarrus Cotton Mills (N. C.).....	120	130
Chadwick Mfg. Co. (N. C.) Pfd.....	103	103
Chiquola Mfg. Co. (S. C.).....	125	125
Clifton Mfg. Co. (S. C.).....	99	103
Clinton Cotton Mills (S. C.).....	98	103
Columbus Mfg. Co. (Ga.).....	98	106
Courtenay Mfg. Co. (S. C.).....	97	97
Dallas Mfg. Co. (Ala.).....	90	95
Darlington Mfg. Co. (S. C.).....	70	75
Converse Co. D. E. (S. C.).....	112	112
Drayton Mills (S. C.).....	100	100
Eagle & Phenix Mills (Ga.).....	137	137
Easley Cotton Mills (S. C.).....	145	150
Enoree Mfg. Co. (S. C.).....	69	75
Enoree Mfg. Co. (S. C.) Pfd.....	100	100
Enterprise Mfg. Co. (Ga.).....	82	90
Exposition Cotton Mills (Ga.).....	240	240
Gaffney Mfg. Co. (S. C.).....	65	70
Gainesville Cotton Mills (Ga.).....	50	50
Granby Cot. Mills (S. C.) 1st Pfd.....	45	45
Grantville Mfg. Co. (S. C.).....	160	165
Greenwood Cotton Mills (S. C.).....	109	113
Grendel Mills (S. C.).....	125	125
Hartsville Cotton Mill (S. C.).....	125	125
Henrietta Mills (N. C.).....	160	175
Inman Mills (S. C.).....	106	110
Lancaster Cotton Mills (S. C.).....	110	125
Lancaster Cot. Mills (S. C.) Pfd.....	91	96
Langly Mfg. Co. (S. C.).....	91	96
Laurens Mills (S. C.).....	141	141
Limestone Mills (S. C.).....	65	65
Lockhart Mills (S. C.) Pfd.....	90	90
Loray Cotton Mills (N. C.) Pfd.....	90	90
Marlboro Cotton Mills (S. C.).....	80	80
Mills Mfg. Co. (S. C.).....	100	100
Molloy Mfg. Co. (S. C.).....	92	100
Monaghan Mills (S. C.).....	115	115
Monarch Cotton Mills (S. C.).....	98	98
Newberry Cotton Mills (S. C.).....	145	145
Ninety-Six Cotton Mills (S. C.).....	115	115
Norris Cotton Mills (S. C.).....	90	90
Odeff Mfg. Co. (N. C.).....	68	68
Olympia Cotton Mills (S. C.).....	104	104
Orr Cotton Mills (S. C.).....	160	160
Pacolet Mfg. Co. (S. C.) Pfd.....	97	100
Pelzer Mfg. Co. (S. C.).....	168	175
Piedmont Mfg. Co. (S. C.).....	175	180
Poe Mfg. Co. F. W. (S. C.).....	125	130
Saxon Mills (S. C.).....	125	125
Sibley Mfg. Co. (Ga.).....	62	62
Spartan Mills (S. C.).....	135	140
Trion Mfg. Co. (Ga.).....	132	140
Tucapau Mills (S. C.).....	200	200
Union-Buffalo (S. C.) 1st Pfd.....	60	60
Victor Mfg. Co. (S. C.).....	122	130
Warren Mfg. Co. (S. C.).....	92	98
Warren Mfg. Co. (S. C.) Pfd.....	100	100
Washington Mills (Va.).....	35	35
Washington Mills (Va.) Pfd.....	100	100
Whitney Mfg. Co. (S. C.).....	140	140
Wicassett Mills (N. C.).....	125	125
Woodruff Cotton Mills (S. C.).....	122	122
Woodside Cotton Mills (S. C.).....	104	104
Watts Mills (S. C.).....	97	97
Williamston Mills (S. C.).....	104	104

## Quotations Furnished by Hugh MacRae &amp; Co., Wilmington, N. C., for Week Ending December 7.

Abbeville Cotton Mills (S. C.).....	Bid.	Asked
Aiken Mfg. Co. (S. C.).....	75	82
American Spinning Co. (S. C.).....	145	150
Anderson Cotton Mills (S. C.).....	65	70
Arkwright Mills (S. C.).....	100	110
Augusta Factory (Ga.).....	65	70
Avondale Mills (Ala.).....	115	125
Belton Mills (S. C.).....	120	122
Bibb Mfg. Co. (Ga.).....	114	114
Brandon Mills (S. C.).....	127	130
Cabarrus Cotton Mills (N. C.).....	120	130
Chadwick-Hoskins Mfg. Co. (N. C.).....	85	85
Chadwick-Hoskins Mfg. Co. (N. C.) Pfd.....	102	102
Chiquola Mfg. Co. (S. C.).....	127 1/2	127 1/2
Clifton Mfg. Co. (S. C.).....	102	107
Clifton Mfg. Co. (S. C.) Pfd.....	99 1/2	103
Clinton Cotton Mills (S. C.).....	120	120
Columbus Mfg. Co. (Ga.).....	98	98
Courtenay Mfg. Co. (S. C.).....	97 1/2	97 1/2
Dallas Mfg. Co. (Ala.).....	70	76
Darlington Mfg. Co. (S. C.).....	70	76
Drayton Mills (S. C.).....	100	100
Eagle & Phenix Mills (Ga.).....	122 1/2	122 1/2
Easley Cotton Mills (S. C.).....	145	150
Enoree Mfg. Co. (S. C.).....	69	73
Enoree Mfg. Co. (S. C.) Pfd.....	100	100
Enterprise Mfg. Co. (Ga.).....	82	90
Exposition Cotton Mills (Ga.).....	240	240
Gaffney Mfg. Co. (S. C.).....	67	70
Gainesville Cotton Mills (Ga.).....	50	50
Granby Cot. Mills (S. C.) 1st Pfd.....	45	45
Grantville Mfg. Co. (S. C.).....	160	165
Greenwood Cotton Mills (S. C.).....	90	90
Grendel Mills (S. C.).....	111	113
Henrietta Mills (N. C.).....	160	175
King Mfg. Co. John P. (Ga.).....	97	102
Lancaster Cotton Mills (S. C.).....	119	125
Lancaster Cot. Mills (S. C.) Pfd.....	91	96
Langley Mfg. Co. (S. C.).....	91	96
Gainesville Cotton Mills (S. C.).....	146	146
Limestone Mills (S. C.).....	141	141
Lockhart Mills (S. C.).....	86	86
Lockhart Mills (S. C.) Pfd.....	97	97
Loray Mills (N. C.) Pfd.....	90	92
Marlboro Cotton Mills (S. C.).....	80	85
Mayo Mills (N. C.).....	165	165
Mills Mfg. Co. (S. C.).....	105	105
Mills Mfg. Co. (S. C.) Pfd.....	109	109
Monaghan Mills (S. C.).....	110	110
Monarch Cotton Mills (S. C.).....	100	100
Newberry Cotton Mills (S. C.).....	145	145
Norris Cotton Mills (S. C.).....	115	125
Olympia Cot. Mills (S. C.) 1st Pfd.....	90	98
Orangeburg Mfg. Co. (S. C.) Pfd.....	80	90
Orr Cotton Mills (S. C.).....	104	106
Pacolet Mfg. Co. (S. C.).....	150	150
Pacolet Mfg. Co. (S. C.) Pfd.....	90	100
Pelzer Mfg. Co. (S. C.).....	160	160
Piedmont Mfg. Co. (S. C.).....	175	175
Poe Mfg. Co. (S. C.).....	126	126
Richland Cot. Mills (S. C.) Pfd.....	45	45
Raleigh Cotton Mills (N. C.).....	100	100
Roanoke Mills (N. C.).....	170	175
Saxon Mills (S. C.).....	120	125
Spartan Mills (S. C.).....	135	140
Springstein Mills (S. C.).....	100	100
Tucapau Mills (S. C.).....	155	155
Trion Mfg. Co. (S. C.).....	140	140
Union-Buffalo Mills (S. C.) 1st Pfd.....	50	50
Victor Mfg. Co. (S. C.).....	120	120
Warren Mfg. Co. (S. C.).....	92	94 1/2
Warren Mfg. Co. Pfd.....	100	100
Washington Mills (Va.).....	25	25
Washington Mills Pfd.....	100	115
Whitney Mfg. Co. (S. C.).....	140	140
Williamston Mills (S. C.).....	164	167
Wicassett Mills (N. C.).....	125	135
Woodruff Cotton Mills (S. C.).....	125	125
Woodside Cotton Mills (S. C.).....	103	106

## Bank Reports.

The First National Bank of Birmingham, Ala., reports November 27, 1908, loans and discounts, \$5,690,241; total cash, \$2,653,271; capital stock, \$1,000,000; surplus and profits, \$725,406; circulation, \$938,800; total deposits, \$7,293,443; total resources, \$9,957,649. W. P. G. Harding is president; J. H. Woodward and J. H. Barr, vice-presidents; Thomas Hopkins, cashier, and F. S. Foster and Thomas Bowron, assistant cashiers.

The First National Bank of Richmond, Va., reports November 27 loans and discounts, \$5,956,468; cash and due from banks, \$1,788,340; capital, \$1,000,000; surplus fund, \$700,000; undivided profits, \$149,178; circulation, \$951,200; deposits, \$5,741,925; total resources, \$8,971,679. John B. Purcell is president; John M. Miller, Jr., vice-president and cashier; Charles R. Burnett, J. C. Joplin, W. P. Shelton and Alex. F. Ryland, assistant cashiers.

## New Corporations.

Arlington, P. O. Baltimore, Md.—The Commercial Bank of Maryland has begun business with \$25,000 capital. The officers are Charles T. Cockey, Jr., president; John K. Culver, first vice-president; Howard E. Jackson, second vice-president, and John A. J. Medcalf, cashier; directors, George W. Alt, William C. Dickey, H. D. Eastman, Henry D. Hammond, Arthur Nicholson, Max Rosen, J. Frank Shipley and J. B. Wailes.

Beebe, Ark.—The MANUFACTURERS' RECORD is informed that a new bank will soon be established with \$25,000 capital,

\$10,000 being foreign and \$15,000 local.

Boonville, Mo.—The Citizens' Trust Co. has been incorporated with \$100,000 capital by F. S. Sauter, N. W. Williams, Steve Cooper and others.

Cochrane, Ala.—The Cochrane State Bank has been incorporated with \$25,000 capital. John T. Cochrane will, it is reported, be president. A later report states business has begun.

Columbia, S. C.—The Gulf & Atlantic Insurance Co., capital \$100,000, with privilege of increasing to \$300,000, has organized with Comptroller-General A. W. Jones as president and Mayor W. S. Reamer, treasurer; directors, P. H. Gadsden, Charleston; A. W. Jones, Columbia; C. K. Henderson, Aiken; J. T. Simmons, Greenwood; W. S. Reamer, Columbia; Geo. S. Mower, Newberry; Jas. A. Hoyt, Columbia; D. O. Herbert, Orangeburg, and S. M. Jones, Chester.

Clayton, Mo.—The Glen Heights Realty Co. has been incorporated with \$10,000 capital by Beverley S. Stevens, Hiram L. Stevens and others.

Dallas, Texas.—The Texas Loan & Guaranty Co. is being organized with \$100,000 capital.

Elizabeth City, N. C.—The Mercantile Bank of Elizabeth City has organized with the following directors: George M. Scott, president; John Q. A. Wood, vice-president; Dr. J. H. White, C. W. Stevens, A. L. Aydtlett, L. C. Blades, W. J. Woodley, Oliver F. Gilbert and J. A. Rucker. Business is expected to begin about January 15 with \$25,000 capital.

Goldthwaite, Texas.—The Trent State Bank of Goldthwaite, it is stated, succeeds D. H. Trent, banker. W. H. Trent will be president; E. B. Anderson, vice-president, and W. C. Dew, cashier.

Goliad, Texas.—It is reported that the First State Bank, which succeeds the Bank of Goliad, has elected the following officers: W. A. Pettus, president; T. M. O'Connor, Hy Shaper, Mike Schiweitz, J. B. Shelton, vice-presidents; Levi Baker, acting vice-president; G. W. Johnson, cashier; directors, Hy Shaper, W. A. Pettus, C. B. Reed, J. B. Shelton, Mike Schiweitz, F. C. Albrecht, Charles Danford, G. W. Johnson, J. C. Calhoun, E. Horney, B. W. Martin, R. L. Pettus and Levi Baker.

Hodgenville, Ky.—The La Rue Savings Bank is reported organized with \$15,000 capital by M. L. Meers, president; T. J. Poteet, vice-president, and F. R. Twyman, cashier.

Jackson, Miss.—The Farmers' Bank & Trust Co. is reported being organized with \$100,000 capital.

Kansas City, Mo.—The Southwest National Bank has been approved; capital \$1,000,000. The organizers are Fernando P. Neal, Room 100 New York Life Building, Kansas City; E. W. Zen, Edward George, Charles J. Schmelzer and L. T. James.

Laurel, Miss.—The Farmers' Bank & Trust Co. is reported being organized with an authorized capital of \$100,000.

Lexington, Ky.—The Southern Security Co. has filed articles of incorporation; capital \$50,000. The incorporators are Ira B. Brightwell of Raleigh, N. C.; W. H. Appleby of Roanoke, Va.; Frank C. Foxworthy of Lexington, Ky.; Scott B. Appleby, Jr., of Norfolk, Va.; P. S. Appleby of Norfolk, Va., and W. G. Brightwell of Knoxville, Tenn.

Lincoln, Ala.—Reports state that a new bank will probably be established. Among those interested are McLane Tilton of Pell City, J. F. Robinson of Cropwell, John Maddox of Easonville and Armond Le Filse, also of Pell City.

Louisville, Ky.—The Home Securities Co. has filed its charter; capital \$100,000. The incorporators are A. G. Crane, J. S. Munsell and G. L. Crane.

Maiden, N. C.—The Maiden Bank, capital \$15,000, has been granted a charter. The incorporators are B. M. Spratt, Jr., of Chester, S. C.; J. L. Cromer, L. A. Carpenter of Maiden and others.

Millersville, Texas.—A State bank is reported being organized by E. D. Miller, Henry Barr and A. A. Hartgrove.

Montgomery, Ala.—The American Health & Accident Insurance Co., capital \$25,000, has been licensed to do business. The incorporators are C. B. Smith and others, and the president is T. C. McGaha.

New Orleans, La.—The United States Realty & Securities Co., authorized capital \$1,000,000, has filed its charter. The directors are Peter Gallagher, M. Burgess, L. P. Delahoussaye, H. W. Raynor, H. J. Roberts and M. Nienaber.

Odenville, Ala.—The Odenville Bank has been organized with \$25,000 capital. The officers are W. T. Brown, president; J. L. Daddox, vice-president; McLane Tilton, cashier.

Polkton, N. C.—J. F. Griffin of Polkton is reported as saying that a new bank is to be organized.

Princeton, Mo.—The Farmers' Bank, capital \$25,000, has been incorporated by Ed Kauffman, H. C. George, C. L. Rumsey and others.

Rentz, Ga.—A \$25,000 bank is reported being organized by John D. Walker, Dr. T. J. Taylor, J. F. Graham, R. A. Ledford, John S. Knight, H. D. Barron, J. L. Dixon, D. R. Thomas, W. T. Phelps, W. B. Rice, J. C. Hamilton, B. P. Wynn, A. W. Davidson, J. A. Davidson, J. L. Woodward, Jr., P. E. Grinstead, R. M. Mackey, B. A. Moye, H. C. Coleman, W. B. Coleman and R. C. Coleman.

Shrively, Ky.—Articles of incorporation for the Bank of St. Helens, capital \$15,000, have been filed by Nick Bibelhauser, Frank N. Allgeier, Joseph Matheis, Clem Luken, John B. Peifer, Ben E. Schaffner and August Bandmann.

St. Louis, Mo.—The Union Station Bank will, it is reported, begin business about January 10 with \$100,000 capital. The directors are Charles E. Lane, president; Enison Chanslor, cashier, and John H. Boogher, counsel; Louis C. Renard, Warren Hamilton, president of the First National Bank of Kirksville, Mo.; J. D. Abeles, Frederick Her



**\$25,000**

High Grade 7 per cent. Preferred Stock in new modern up-to-date Cotton Mill, valued at \$100,000, this stock being practically a first lien on earnings and assets of the company. For sale by **F. C. ABBOTT CO., Charlotte, N.C.**

Established 1835

**The Merchants National Bank**

South and Water Sts., BALTIMORE, MD.

DOUGLAS H. THOMAS, President.  
Wm. Ingle, Vice-President and Cashier.  
J. C. WARD, Asst. Cashier.  
JOHN B. H. DUNN, Asst. Cashier.

Capital, \$1,500,000

Surplus and Profits, - - - \$900,000

Deposits, \$12,000,000

Accounts of Banks, Bankers, Corporations and Individuals solicited. We invite correspondence.

**JOHN NUVEEN & CO.**

1st. Nat. Bank Bldg., CHICAGO

We purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.  
Write us if you have bonds for sale.

**THE FIRST NATIONAL BANK**

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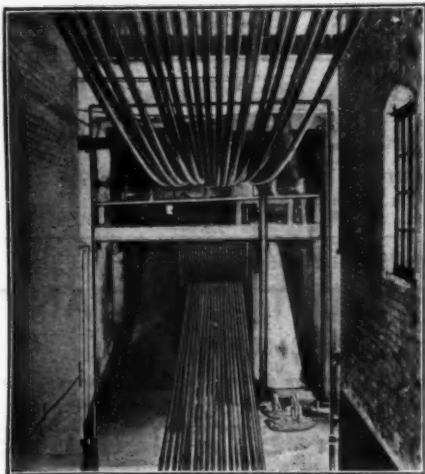
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Home Office—Dover, Delaware

Announces the opening of a branch office in the City of Philadelphia, where arrangements may be made for the organization and consolidation of corporations, registration of stock, and for acting as trustee in bond issues. The company will assist substantial industrial enterprises requiring additional capital, and is especially interested in the industrial development of the South.

Correspondence solicited.

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**INTERNATIONAL TRUST CO.**

OF MARYLAND

BALTIMORE, MD

Capital and Surplus, \$2,500,000

**MAKES A SPECIALTY OF SOUTHERN BUSINESS**

THIS COMPANY acts as Executor, Administrator, Guardian and Trustee. Registrar, Transfer and Fiscal Agent for Railroads, Corporations and Financial Concerns, States, Cities and Towns, and as Depository under plans of reorganization.

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CHAS. D. FENHAGEN, Secretary and Treasurer.  
WALTER D. FOCKE, Asst. Secy. and Asst. Treas.

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SUMMERFIELD BALDWIN,  
RICHARD H. EDMONDS,  
SAMUEL C. ROWLAND,  
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Receives Deposits subject to Check, and allows Liberal Rates of Interest thereon.

**CONDENSED STATEMENT OF THE FIRST NATIONAL BANK OF RICHMOND, VA. NOVEMBER 27, 1908.**

RESOURCES.	
Loans and Discounts,	\$5,956,468.87
Overdrafts,	388.99
U. S. Bonds at Par,	1,000,000.00
Virginia Bonds,	101,444.00
Other Stocks and Bonds,	85,096.75
Banking House,	29,350.38
(Assessed Value, \$65,250.00)	
Furniture and Fixtures,	0.00
Other Real Estate,	1,798,340.87
Cash and Due from Banks,	\$6,971,679.86
<b>LIABILITIES.</b>	
Capital,	\$1,000,000.00
Surplus Fund,	700,000.00
Undivided Profits,	149,178.07
Unearned Discount, etc.,	100,000.00
Accrued Interest and Taxes,	37,376.50
Circulation,	961,300.00
Deposits,	5,741,925.29
Bond Account,	292,000.00
	\$8,971,679.86

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Best coal, best market and best facilities in the South.

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WELCH, W. VA.

**The National Exchange Bank OF BALTIMORE, MD.**

Hopkins Place, German and Liberty Sts.

Capital, \$1,000,000

July 15, 1908, Surplus and Profits, \$671,631.60

**OFFICERS:**

WALDO NEWCOMER, President.  
SUMMERFIELD BALDWIN, Vice-Pres.  
CHARLES W. DORSETT, Vice-Pres.  
R. VINTON LANSDALE, Cashier.  
WM. J. DELCHER, Asst. Cashier.

Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

**MARYLAND TRUST COMPANY**

BALTIMORE, MD.

CAPITAL.....\$2,000,000

**OFFICERS.**

L. S. Zimmerman.....Acting President  
Carroll Van Ness.....Treasurer  
Jervis Spencer, Jr.....Asst. Treasurer  
Ivan Skinner.....Asst. Secretary

TRANSACTS A GENERAL TRUST AND BANKING BUSINESS.

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Special Rates on Time Deposits.

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Correspondence and Interviews Invited.

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OF BALTIMORE

W. E. Corner German and Calvert Streets.

Capital Stock and

Surplus.....\$5,948,449

Deposits.....\$7,900,000

Resources.....\$13,850,913

This Company solicits deposit accounts from Banks, Corporations and Individuals, and allows interest thereon at liberal rates conforming to conservative business.

We invite correspondence and personal interviews, and will be pleased to furnish information to those parties who desire to make deposits with us.  
JOHN GILL, President.

**SURETY BONDS****Fidelity & Deposit Co.**

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Home Office, - BALTIMORE, MD.

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Becomes Surety on bonds of every description.

AGENTS IN ALL PRINCIPAL CITIES

HARRY NICODRUMUS, Sec'y and Treas.  
EDWIN WARFIELD, President

as follows: For sewers, \$32,500; City Hall, \$15,000; water extension, \$13,500; street improvements, \$10,000; storm sewers and drainage, \$7500; public parks, \$3500.

Albany, Ga.—The \$75,000 of municipal improvement bonds have been declared valid by the court.

Ardmore, Okla.—It is reported that an election is to be held to vote on \$300,000 of street-improvement and school bonds.

Asheville, N. C.—The Buncombe County Commissioners have made application to the Legislature to issue bonds to pay off floating indebtedness, which amounts to \$70,000.

Baltimore, Md.—The city has sold at 92 and interest to J. A. Hutchinson of Boston an additional \$500,000 of sewerage loan stock. The remaining \$1,000,000 of 3½ per cent. sewerage loan has been disposed of to a New York syndicate at the same price.

Bartlett, Texas.—The Attorney-General has approved \$4000 of 4½ per cent. 4-15-year school-building bonds.

Beaufort, N. C.—Thos. J. Bolger & Co. of Chicago are reported to have been awarded at par \$20,000 of 5 per cent. 30-year electric-light bonds. C. S. Maxwell is town clerk.

Blakely, Ga.—It is reported that the election called for November 24 to vote on \$25,000 of 5 per cent. sewer bonds has been postponed until December 29.

Boston, Texas.—Precinct No. 1, Bowie county, has voted \$250,000 of road and bridge bonds.

Brunswick, Ga.—Townsend, Scott & Son of Baltimore have been awarded \$64,000 of 5 per cent. refunding bonds.

Capitol Hill, Okla.—An election will probably be called by the Town Council to vote on \$25,000 of water-works bonds.

Charleston, S. C.—Various parties have been awarded the \$492,500 of 4 per cent. bonds, \$395,000 at a premium and the balance at par.

Charlotte Court House, Va.—An election is to be held in Charlotte county January 14 to vote on \$100,000 of permanent road-improvement bonds.

Childress, Texas.—The city recently voted \$35,000 of 5 per cent. 10-40-year water-works bonds.

Conroe, Texas.—It is reported that an

election will soon be held to vote on \$17,000 of water-works bonds.

Cotulla, Texas.—A local bank is reported to have purchased at par \$14,000 of 5 per cent. bonds of Cotulla common school district No. 1.

Covington, Ky.—Bids will be received by James C. Metcalf, clerk Board of Education, until 6 P. M. December 11 for \$75,000 of 4 per cent. 10-25-year school district building bonds.

Fitzgerald, Ga.—Local reports state that within the last two weeks the city and Ben Hill county has disposed of nearly \$250,000 of sewer, school, water and court-house bonds.

Fort Valley, Ga.—An election held November 21, it is stated, to vote on \$10,000 of municipal telephone exchange bonds failed to carry.

Graham, N. C.—It is stated that \$200,000 of 5 per cent. 50-year road-improvement bonds have been purchased by Thos. J. Bolger & Co. and Farson & Sons Company of Chicago.

Granite, Okla.—The \$20,000 of 6 per cent. water-works bonds have been awarded John Nuveen & Co. of Chicago at \$250 premium.

Guthrie, Okla.—Reports state that \$45,000 of 5 per cent. 25-year viaduct bonds will soon be offered for sale.

Haskell, Texas.—Haskell county school district bonds are reported being offered for sale.

Guthrie, Okla.—The MANUFACTURERS' RECORD is informed that the Oklahoma Bond & Trust Co. of Guthrie has purchased at prices ranging from 101 to 102 the following 6 per cent. 20-year school bonds: \$3300 school district No. 10, Carter county; \$8000 school district No. 21, Carter county; \$1500 school district No. 25, Carter county; \$2000 school district No. 31, Carter county; \$5000 of school district No. 43, Carter county; \$7500 of school district No. 45, Carter county; \$3000 of school district No. 43, Craig county; \$1000 of school district No. 33, Grady county; \$1000 of school district No. 23, Johnston county; \$2000 of school district No. 25, Johnston county; \$1800 of school district No. 62, Wagoner county; \$1000 of school district No. 42, Wagoner county; \$1500 of district No. 32, Wagoner county; \$3000 of school district No. 17,

Tulsa county; \$1250 of school district No. 19, Tulsa county.

Hollis, Okla.—A special election is to be held to vote on \$20,000 of school-construction bonds.

Hot Springs, Ark.—A St. Louis firm is reported to have purchased \$10,000 of school district bonds.

Houston, Texas.—Reports state that an election is to be called to vote on \$20,000

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Hawes Bros. & Blythe, Fall River, Mass.

Incorporated Under Special Act of Legislature

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CANTON, O.

"QUALITY PRODUCTS"

New York Branch  
Corner West and Cedar Streets

## CONDENSED REPORT TO COMPTROLLER

### The First National Bank of Birmingham, Ala.

FRIDAY, NOVEMBER 27, 1908.

RESOURCES.		LIABILITIES.	
Loans and Discounts.....	\$5,690,241.41	Capital Stock.....	\$1,000,000.00
Overdrafts.....	36.95	Surplus and Profits.....	725,406.66
U. S. Bonds and Premiums.....	1,078,000.00	Circulation.....	938,800.00
State of Alabama Bonds.....	302,400.00		
Other Stocks and Bonds.....	233,700.00		
CASH.		DEPOSITS.	
In Vault.....	\$ 695,822.16	Individual.....	\$6,139,146.41
With Banks.....	1,902,649.44	Bank.....	1,006,962.07
With U. S. Treasurer.....	54,800.00	United States.....	147,334.82
	\$2,653,271.60		\$7,293,443.30
	\$9,957,649.96		\$9,957,649.96

### Officers:

W. P. G. HARDING, President.  
J. H. WOODWARD, Vice-President. J. H. BARR, Vice-President.  
THOMAS HOPKINS, Cashier.  
F. S. FOSTER, Assistant Cashier. THOS. BOWRON, Assistant Cashier.  
J. E. OZBURN, Secretary Savings Department.

The First National Bank has been closely identified with the vital interests of Birmingham, commercial, industrial and civic, for twenty-five years, and during the last ten years its activities have covered the entire State of Alabama, and its connections in all parts of the United States make it a National Bank in fact, as well as by charter name.

With its large capital and surplus, conservative directorate, progressive management, ample equipment and central location, it is prepared to handle satisfactorily all business entrusted to it, and solicits accounts from responsible firms, corporations and individuals who may desire to extend their banking facilities.

CAREFUL ATTENTION GIVEN TO COLLECTIONS.



of Houston Heights drainage, street and fire-protection bonds.

Kaufman, Texas.—The city has voted bonds for water mains.

Kingston, Okla.—On December 10 an election will be held to vote on \$25,000 of school-building bonds.

Knoxville, Tenn.—The Third National Bank is reported to have offered to purchase the \$60,000 of 6 per cent. street-improvement bonds.

Lawton, Okla.—Reports state that \$100,000 of 5 per cent. 20-year school district bonds have been awarded to Farson, Son & Co. of Chicago.

Luverne, Ala.—C. E. Turner, town clerk, will receive bids until December 15 for \$20,000 of 5 per cent. 10-20-year water-works bonds.

McKenzie, Tenn.—Reports state that an election is to be called to vote on \$20,000 of general improvement bonds.

Memphis, Tenn.—A bill is to be introduced in the Legislature asking authority to issue \$1,000,000 of park bonds. Address the Mayor.

Minco, Okla.—J. C. Kinzey, Mayor, writes the MANUFACTURERS' RECORD that bonds for water-works have been disposed of, providing the bonds are voted. W. E. Showen is clerk.

Montgomery, Ala.—On December 14 the city will vote on \$140,000 of school bonds.

Montgomery, Ala.—An election is to be held in Montgomery county January 4 to vote on \$150,000 of 4½ per cent. 50-year road and bridge bonds. David Fleming is chairman Board of Revenue of Montgomery county.

Monticello, Fla.—Bids will be received by the Board of County Commissioners, Jas. S. Denham, chairman, until January 5 for \$25,000 of 5 per cent. 20-40-year Jefferson county bonds.

New Albany, Miss.—The First National Bank, New Albany, is reported to have

purchased at par \$10,000 of 5 per cent. 20-year water and light bonds.

Newbern, N. C.—An election is to be held January 5 to vote on \$50,000 of street-paving bonds.

New Orleans, La.—The finance committee has been appointed by the Dock Board to advertise for bids for \$3,500,000 of wharf bonds.

Pascagoula, Miss.—The Merchants' and Marine Bank of Pascagoula has purchased \$12,000 of 6 per cent. 20-year water-works bonds.

Princeton, Mo.—An election November 3 to vote on Mercer county courthouse bonds failed to carry.

Robert Lee, Texas.—An election is to be held in Coke county to vote on \$35,000 of road and bridge bonds.

Seymour, Texas.—The city has voted 4 per cent. 40-year water-works and sewerage bonds.

Shawnee, Okla.—It is reported that an election will soon be held to vote on \$125,000 of school, \$150,000 of sewer, \$50,000 of convention hall and \$20,000 of hospital bonds.

Sherman, Texas.—The Attorney-General has approved \$14,000 of water-works and \$16,000 of electric-light 4½ per cent. bonds.

Sligo, Texas.—The Attorney-General has approved \$6000 of Yoakum county courthouse bonds.

Starke, Fla.—W. O. Tison, Gainesville, and Bradford County Bank, Starke, are reported to have purchased the \$6000 of 6 per cent. 20-year water and light improvement bonds.

St. Joseph, Mo.—N. W. Halsey & Co. are reported to have purchased at \$846 premium the \$250,000 of 4 per cent. building bonds.

St. Petersburg, Fla.—The National Bank of St. Petersburg has been awarded \$12,000 of improvement bonds.

Tallahassee, Fla.—The Union Savings Bank & Trust Co. of Cincinnati has purchased \$75,000 of 5 per cent. 30-year water-works bonds.

Terrell, Texas.—E. R. Miller, city secretary, informs the MANUFACTURERS' RECORD that the city has issued and sold \$15,000 of electric-light bonds.

Texarkana, Texas.—An election is to be held December 12, it is stated, to vote on \$134,000 of school, street and other improvement bonds.

Tulsa, Okla.—The \$125,000 of school district bonds have been purchased by Spitzer & Co. of Toledo, Ohio, it is stated.

Tusculum, Ala.—Colbert county has

voted \$25,000 of 5 per cent. 10-year courthouse bonds.

Vinita, Okla.—Reports state that an election will soon be held to vote on \$9000 of auditorium bonds.

Waynesville, N. C.—A. J. Hood & Co. of Detroit are reported to have purchased at par \$25,000 of 5 per cent. 30-year water-improvement bonds.

Weatherford, Texas.—Reports state that \$25,000 of electric-light-plant bonds have been sold.

Woodlawn, P. O. Birmingham, Ala.—An election is to be held December 28 to vote on \$15,000 of sewer and \$10,000 of school bonds.

#### Financial Notes.

It is reported that the First National Bank of Tampa, Fla., will open a savings department on January 1.

The Concord Bank at Concord, Tenn., is reported to be doing business in its new building on Front street.

It is reported that the capital of the Exchange Bank of Milledgeville, Ga., is to be increased from \$25,000 to \$50,000.

Notice is given that on January 1 Elm Grove school bond No. 3 and Edgington Lane school bond letter A will be redeemed at the State Bank of Elm Grove, W. Va.

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Ads. marked \* appear every other week. Ads. marked † appear in first issue of the month. Ads. marked ‡ not in this issue

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American Frog & Switch Co. .... 59	Byers Machine Co., John F. .... 101	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Myers & Bro., F. E. .... 108	& Nut Co. .... 102
American Hoist & Derrick Co. 99	C	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	N	Russell-Compton Co. .... 85
American Injector Co. .... *	Caldwell & Sons Co., H. W. .... †	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Nash Clock Co., B. .... 79	Rust Boiler Co. .... 8
American Iron & Steel Mfg. Co. 102	Caldwell & Sons Co., H. W. .... †	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Nashville Hardwood Floor Co. 79	S
American Laundry Machinery Mfg. Co. .... 4	Calumet Steel Co. .... 26	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Nathan Mfg. Co. .... 10	Saco & Pettie Machine Shop. 84
American Locomotive Co. .... 91	Cameron Septic Tank Co. .... 20	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	National Can Co. .... 79	Safety Car Heat & Light Co. 113
American Luxor Prism Co. .... 37	Cameron Stm. Pump Wks., A.S. 65	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	National Exchange Bank of Baltimore, Md., The. .... 75	Saginaw Mfg. Co. .... 13
American Machine Co. .... 16	Cameron & Barkley Co. .... 65	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	National Hoisting Eng. Co. .... 99	Salem Foundry & Mch. Wks. .... 13
American Machinery Co. .... 89	Canton Art Metal Co., The. .... 76	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	National Iron Co. .... 89	Sammuel, Frank. .... 84
American Mfg. Co. .... 75	Capwell Horse Nail Co. .... 84	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	National Lumber & Creosoting Co. .... 41	Sanger, A. L. .... 84
American Pipe Mfg. Co. .... 105	Carbondale Machine Co. .... †	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	National Mosaic Flooring Co. .... 41	Saunders, S. D. .... 95
American Process Co. .... 23	Cardwell Machine Co. .... 110	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	National Paint Works. .... 43	Savannah Blow Pipe Co. .... 43
American Pulley Co., The. .... 15	Carnege Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	National Pipe Bending Co. .... 34	Savannah Loco. Wks. & S. Co. 88
American Pulverizer Co. .... *	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	National Roofing Co. .... 34	Scales & Sons Co., W. B. .... 20
American Railway Supply Co. 20	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	National Tube Co. .... 34	Scherzer Roll Lift Bridge Co. .... 93
American Rolling Mill Co. .... 86	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Naylor & Co., S. E. Pipe Mfg. Co. 2	Schmidt & Sons Co., J. S. .... 6
American Safety Lamp, Mine & Supply Co. .... 108	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	New Albany Mfg. Co. .... 2	Schrieber & Sons Co., L. .... 85
Amer. Saw Mill Mch. Co. .... 108	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	N. J. Car Spring & Rub. Co. .... 14	Scotfield Engineering Co. .... 41
American Sheet & Tin Plate Co. 105	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	N. J. Wire Cloth Co. .... 35	Scott Mfg. Co. .... 86
American Spiral Pipe Works. .... 105	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Newman Machine Co. .... 108	Scott Roofing & Mfg. Co. .... 86
American Steel & Wire Co. .... 28	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	New Orleans Roof & Metal Wks. 79	Scott & Williams. .... 85
American Stone Co. .... 19	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Nicholson Typewriter Co. .... 79	Seaboard Air Line Railway. .... 111
American Supply Co. of Providence, R. I. .... 95	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Nordyke & Marmon Co. .... 40	Selden-Breck Constr. Co. .... 20
American Valve & Meter Co. .... 95	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Norfolk & Southern Ry. Co. .... 111	Sellers & Co., Inc., Wm. F. .... 97
American Water Softener Co. 20	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Norfolk & Western Ry. Co. .... 111	Seyfert Sons, Inc., L. F. .... 85
American Well Works. .... †	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Norfolk & Western Ry. Co. .... 111	Shaffer & Miller. .... 18
Ames & Co., W. .... †	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Northern Electrical Mfg. Co. 114	Shand Engineering Co. .... 18
Andrews, Perry. .... 105	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Northern Engineering Works. 20	Shaw Co., Benjamin. .... 20
Arncliffe Mfg. Co. .... 39	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Northern Water Softener Co. 20	Shelby Steel Tube Co. (See Nat. Tube Co.)
Arnold Co., The. .... 18	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Northern Western Expanded Metal Co. .... 29	S
Artesian Well & Supply Co. .... †	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Norton Co. .... 29	Shelby Steel Tube Co. (See Nat. Tube Co.)
Arundel Sand & Gravel Co. .... 21	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Shepherd Engineering Co. .... 4
Ash Grove Lime & Portland Cement Co. .... 22	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Shimer & Sons, Samuel J. .... 109
Atcherson, P. L. .... 81	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Shook & Fletcher. .... 20
Atlanta, B'ham & Atlantic R.R. 116	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sibley-Menge Press Brick Co. 21
Atlanta Steel & Wire Co. .... 101	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Simons-Mayrant Co. .... 19
Atlanta Utility Works. .... 40	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair Laundry Mch'ry Co. .... 4
Atlantic Equipment Co. .... 17	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Atlas Machine Co. .... 23	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Atlas Portland Cement Co. .... 23	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Audit Co. of New York, The. .... *	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Austin Mfg. Co. .... 40	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Austin-Western Co., Ltd., The. 85	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Babcock & Wilcox Co. .... 5	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Bader & Sons Co., E. B. .... 110	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Baldwin & Sons Co., E. B. .... 110	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Baldwin Equip. & Supply Co. .... 87	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Baldwin Locomotive Works. .... 91	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Ball Engine Co. .... 4	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Baltimore Audit Co. .... 76	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Baltimore Bridge Co. .... 34	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Baltimore Copperage Co. .... 104	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Baltimore Office Supply Co. .... 76	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Baltimore Steam Packet Co. .... 112	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Baltimore Trust & Guar. Co. .... 112	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Balto. Typewriter & Supply Co. 79	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Bandy & Myers. .... 18	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Bank of Richmond. .... 76	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Banner Electric Co., The. .... *	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Barker, Harry T. .... 18	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Barnard & Leas Mfg. Co. .... 107	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Barnett Co., G. & H. .... 116	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Barnett Mfg. Co. .... 37	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Barron, J. S. .... 3	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Barrow, Wade, Guthrie & Co. 76	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Bartlett & Snow Co., C. O. .... 107	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Bates' Sons, James. .... 15	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Bay State Iron Works. .... 4	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Beblen, C. .... 85	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Bell Company, Inc., J. F. .... 76	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Belmont Iron Works, Inc. .... 34	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Belting, care of Mfrs. Record. 85	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Benjamin Electric Mfg. Co. .... †	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Bertch & Co. .... 85	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Bingham, F. F. .... 81	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Bird & Son, F. H. .... 38	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Birmingham, C. W. .... 103	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Birmingham Rail & Loco. Co. .... 87	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Bladedell Mch. Co. .... 87	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Blake Mfg. Co., The Geo. F. .... 100	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Blanford & Spring. .... 18	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Biles Co., E. W. .... 8	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Block-Pollak Iron Co. .... 88	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Boyle, Richard A. .... 76	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Bolles Iron & Wire Works, J. E. 35	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Boomer & Boschert Press Co. .... 79	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Borst & Company. .... 18	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Boston Incandescent Lamp Co. 79	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Bourne-Fuller Co. .... 44	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Bourse, The. .... 111	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13
Bowen, Joseph E. .... 87	Carnegie Steel Co. .... 30	Davis & Son, G. E. .... 107	Hawthorn, T. Chas. .... 42	Novaculite Paving Co. .... †	Sinclair-Scott Co. .... 13



